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NAC-01

Mr. David Sibbet  
Latitude 33  
4933 Paramount Dr., 2<sup>nd</sup> Floor  
San Diego, CA 92123

Subject: Biological Resources Letter Report for Rancho Cielo Estates SPA 05-004

Dear Mr. Sibbet:

At your request, HELIX Environmental Planning, Inc. (HELIX) performed biological surveys on 3 existing parcels (Assessor's Parcel Numbers 264-321-16, -32, and 265-270-71) within the Rancho Cielo Estates Specific Plan (Specific Plan Amendment Area [SPA] 05-004). This letter report provides the results of the survey, identifies proposed impacts due to project development, and proposes mitigation to offset those impacts.

#### PROJECT DESCRIPTION

The proposed project represents the seventh amendment to the Rancho Cielo Specific Plan in response to the reclassification of three parcels (Tentative Maps [TMs] 5440, 5441, and 5442) to include deletion of a water reclamation facility and reclaimed water reservoirs, redistribution of dwelling units within the SPA, and changing the implementation of the Village Estates areas.

##### TM 5440

The Village Center site would be reclassified to Village Estate, reflecting a change in the proposed use. The area would be subdivided into one parcel for condominium units. The southern portion of this parcel includes an existing open space easement that would not be affected by the proposed reclassification. The area between the northern edge of the existing open space and southern edge of the development or Zone B brush management area, which ever extends further south, will be dedicated as open space.

##### TM 5441

The reclaimed water reservoir site would be placed into open space. A small part of the existing open space (approximately 0.83 acres) would be vacated to allow for development and Zone B brush management.



### TM 5442

The water reclamation facility is no longer proposed; rather, the parcel would be subdivided into three lots to accommodate three single-family residences.

### SITE DESCRIPTION

The three parcels (TMs 5440, 5441, and 5442) are located within the Rancho Cielo Estates SPA, which is approximately 2 miles west of Lake Hodges and 2 miles east of Encinitas (Figure 1) in the San Dieguito Planning Area portion of unincorporated San Diego County. The parcels occur within Section 12, with TM 5442 occurring within Sections 14 and 15 in Township 13 South, Range 3 West of the U.S. Geological Survey Escondido 7.5-minute quadrangle (Figure 2).

The three parcels are situated within hills northwest of the Lake Hodges dam. Elevations within the parcels are as follows: TM 5440 ranges from 1,120 feet above mean sea level (amsl) along the southeastern perimeter to 1,180 feet amsl atop the peak in the center of the parcel; TM 5441 ranges from approximately 900 feet amsl in the canyon at the northern boundary to 1,040 feet amsl on a hill at the eastern boundary; and TM 5442 ranges from approximately 475 feet amsl in the western corner of the site to 525 feet amsl in the eastern corner.

### METHODS

HELIX biologists Brian Parker and W. Larry Sward conducted a biological investigation of the three parcels on December 1, 2005. The site was surveyed on foot, and all vegetation communities within the three parcels as well as within 100 feet off site were mapped on 1"=150' scale aerial photographs of the project vicinity. The vegetation mapping on TM 5442 was updated by Mr. Parker on March 1, 2007, and a subsequent site visit to TM 5441 was made on March 30, 2007 by Mr. Sward to expand vegetation mapping to include Parcels 1 to 4 of this TM.<sup>1</sup> Vegetation on both parcels was updated with the aid of a November 2006 aerial photograph. All plant and animal species were identified in the field by visual observation as well as by detection of songs, calls, scat, and burrows.

In addition to field surveys, HELIX conducted a search of the California Department of Fish and Game (CDFG) California Natural Diversity Database (CNDDDB; CDFG 2007) to determine sensitive plant and animal species historically reported in the project vicinity. In conjunction with known ranges and habitat characteristics, these data were used to assess the potential for these County of San Diego (County) sensitive plant and animal species to occur on site.

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<sup>1</sup>TM 5441 was subsequently combined into one lot. Parcels 1, 2, and 3 front on Via Ambiente and were approved for development. Parcel 4 was designated as open space on the previous map.





Nomenclature used in this report follows Holland (1986) and Oberbauer (1996) for vegetation communities, Hickman, ed. (1993) for plants, American Ornithologists' Union (2007) for birds, Collins and Taggart (2002) for reptiles, and Baker et al. (2003) for mammals. Sensitive species status follows the CNDDB (2007) and/or the California Native Plant Society ([CNPS] 2008).

## RESULTS

### Vegetation Communities

The survey areas support six vegetation communities: Diegan coastal sage scrub (including disturbed), southern mixed chaparral, non-native grassland, non-native vegetation, disturbed habitat, and developed land (Figures 3, 4, 5, and 6; Table 1).

Table 1 EXISTING VEGETATION COMMUNITIES					
Vegetation Community	Tier*	Area†			
		TM 5440	TM 5441	TM 5442	Total
Diegan coastal sage scrub (including disturbed)	II	1.70	10.67	1.02	13.39
Southern mixed chaparral	III	0.00	10.23	0.00	10.23
Non-native grassland	III	0.00	0.11	0.00	0.11
Non-native vegetation	IV	0.00	0.00	0.06	0.06
Disturbed habitat	IV	3.83	0.39	1.48	5.70
Developed land	IV	0.06	0.06	0.48	0.60
<b>TOTAL</b>		<b>5.59</b>	<b>21.46</b>	<b>3.04</b>	<b>30.09</b>

\*Tiers follow the Biological Mitigation Ordinance (BMO); County 1997a)

†All areas are presented in acre(s) rounded to the nearest 0.01

### Diegan Coastal Sage Scrub (including disturbed)

Coastal sage scrub is one of the two dominant shrub communities occurring in southern California that occupies xeric sites with shallow soils. Although greatly reduced from its historical distribution (Oberbauer 1991), Diegan coastal sage scrub occurs from Los Angeles County to Baja California, Mexico ([Baja]; Holland 1986). This community is generally dominated drought-deciduous shrubs, capable of withstanding prolonged summer and fall droughts. Diegan coastal sage scrub is considered USFWS and CDFG sensitive and is a County Tier II habitat. It is known to support a number of threatened, endangered, and rare species, including the federally listed threatened coastal California gnatcatcher (*Poliophtila californica californica*).





A total of 13.39 acres of Diegan coastal sage scrub (including 9 acres of disturbed) occur within the survey areas. On TM 5440, the sage scrub (1.70 acres, of which 0.47 acre is disturbed) is somewhat sparse, occurring mostly in an open space easement on a south-facing graded slope dominated by black sage (*Salvia mellifera*) with scattered California sagebrush (*Artemisia californica*) and California buckwheat (*Eriogonum fasciculatum*). The disturbed sage scrub on this parcel occurs on the slope in the northern portion of the site and is characterized largely by scattered California buckwheat with a large proportion of bare ground. On TM 5441, the sage scrub occurs primarily on southwest-facing slopes in the eastern portion of the parcel (10.67 acres), where it is characterized by California sagebrush, California buckwheat, and broom baccharis (*Baccharis sarothroides*). A total of 1.02 acres (including 0.65 acre of disturbed) of Diegan coastal sage scrub occurs on TM 5442. Coastal sage scrub on this parcel clustered largely in the eastern portion and is characterized by scattered San Diego goldenbush (*Isocoma menziesii* var. *menziesii*), California sagebrush, broom baccharis, and fascicled tarplant (*Deinandra fasciculata*).

### Southern Mixed Chaparral

Southern mixed chaparral is composed of tall sclerophyllous shrubs that may form dense stands with poorly developed understories but a large amount of leaf litter. Chaparral plants are typically more deep-rooted than those in coastal sage scrub, and this community occurs in more mesic areas often covering north-facing slopes. It is considered a sensitive Tier III habitat because it may support wide-ranging species such as mule deer (*Odocoileus hemionus*), mountain lion (*Felis concolor*), and golden eagle (*Aquila chrysaetos*).

Approximately 10.23 acres of southern mixed chaparral were mapped during the biological survey all within TM 5441 and covering the bulk of the parcel on both sides of a small canyon. The chaparral on the southwest-facing slopes is characterized by wart-stemmed ceanothus (*Ceanothus verrucosus*), laurel sumac (*Malosma laurina*), chamise (*Adenostoma fasciculatum*), and Our Lord's candle (*Yucca whipplei*). The northeast-facing slopes are dominated by Ramona ceanothus (*Ceanothus tomentosus*), with scattered lemonadeberry (*Rhus integrifolia*), toyon (*Heteromeles arbutifolia*), and wart-stemmed ceanothus.

### Non-native Grassland

Non-native grassland consists of annual grasses, often associated with numerous species of showy-flowered native annual forbs, and occurs on gradual slopes with deep, fine-textured, usually clay soils. Most of the annual introduced species that make up the majority of species and biomass within the non-native grassland originated from the Mediterranean region, an area with a long history of agriculture and a climate similar to that of coastal California. A total of 0.11 acre of non-native grassland occurs on TM 5441.





### Non-native Vegetation

Non-native vegetation is identified by areas of cultivated or landscaping plants that have naturalized into otherwise native habitat areas or that are remnant of previous cultivated land uses. Such plants occur without supplemental irrigation and may spread, supplanting native plant species. Under the BMO, non-native vegetation is a Tier IV habitat and is not considered sensitive.

Approximately 0.06 acre of non-native vegetation was mapped during the biological survey, all within the TM 5442 parcel. This community is characterized by exotic landscaped plantings along the southern parcel boundary adjacent to an off-site nursery.

### Disturbed Habitat

Disturbed habitat consists of land cleared of vegetation or where soil has been compacted, greatly reducing its habitat value. Under the BMO, disturbed habitat is a Tier IV habitat and is not considered sensitive. To meet the County's definition of disturbed habitat, an area must exhibit the following characteristics:

- It has been permanently altered by legal human activity;
- Disturbance must have eliminated all future biological value for most species;
- No native vegetation remains; and
- It does not exhibit moderate to high value for sensitive wildlife, including foraging potential for raptors.

Approximately 5.70 acres of disturbed habitat occurs within the survey areas, including 3.83 acres within the TM 5440 parcel, 0.39 acre within the TM 5441 parcel, and 1.48 acres within the TM 5442 parcel. In all three parcels, disturbed habitat exists in legally cleared and graded areas and is characterized by typical invasive species such as black mustard (*Brassica nigra*), perennial mustard (*Hirschfeldia incana*), prickly sow-thistle (*Sonchus asper*), and star thistle (*Centaurea melitensis*). Additionally, a number of native species, including laurel sumac and toyon, appear to have been planted within the disturbed areas of TM 5442.

### Developed

Developed land occurs where permanent human structures or pavement have been installed, or where landscaping is clearly tended and maintained, preventing the growth of native vegetation. Under the BMO, developed land is a Tier IV habitat and is not considered sensitive.

Approximately 0.60 acre of developed land was mapped during the biological survey, including 0.06 acre within the TM 5440 parcel, 0.06 acre within TM 5441, and 0.48 acre within TM 5442. These areas consist of paved roads or roads currently under construction along the parcel boundaries.





### Plant and Animal Species

A total of 67 plant species were recorded on site during the biological investigation (Attachment B), including four County sensitive species: San Diego sagewort (*Artemisia palmeri*), wart-stemmed ceanothus, Engelmann oak (*Quercus engelmannii*), and ashy spike-moss (*Selaginella cinerascens*).

#### **San Diego sagewort (*Artemisia palmeri*)**

**Listing:** --/--; CNPS List 4.2; County Group D

**Distribution:** Coastal San Diego County and Baja

**Habitat:** Occurs in riparian habitats but may occur in wetter chaparral areas

**Status on site:** Eight individuals were observed in a moist depression in north-northeast-facing chaparral on TM 5441

#### **Wart-stemmed ceanothus (*Ceanothus verrucosus*)**

**Listing:** --/--; CNPS List 2.2; Multiple Species Conservation Plan (MSCP) Covered; County Group B

**Distribution:** Coastal San Diego County and Baja

**Habitat:** Found in mesic coastal chaparral

**Status on site:** Observed throughout approximately 3.48 acres on TM 5441, particularly in chaparral in the northwestern portion of the parcel

#### **Engelmann oak (*Quercus engelmannii*)**

**Listing:** --/--; CNPS List 4.2; County Group D

**Distribution:** Cismontane foothills of southern California (primarily from Santa Ana Mountains to Baja) within upper elevation limit of approximately 4,200 feet

**Habitat:** Oak woodland and southern mixed chaparral; larger oaks sometimes occur in vast savannah grasslands. In foothills, may occur as shrubby element in chaparral.

**Status on site:** One individual recorded within Diegan coastal sage scrub on TM 5442; it occurs at the top of a slope along Camino de Arriba. It appears to have been planted as part of the roadway landscaping.

#### **Ashy spike-moss (*Selaginella cinerascens*)**

**Listing:** --/--; CNPS delisted; County Group D

**Distribution:** Orange and San Diego counties; northwestern Baja

**Habitat:** Flat mesas in coastal sage scrub and chaparral. A good indicator of site degradation, as it rarely inhabits disturbed soils.

**Status on site:** Scattered locations within Diegan coastal sage scrub on TM5441

A total of 27 animal species was detected on site during the biological survey (Attachment C). Four County sensitive animal species were detected on or in the survey area vicinity: southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), white-tailed kite (*Elanus leucurus*), coastal California gnatcatcher, and San Diego black-tailed jackrabbit (*Lepus californica bennettii*).





**Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)**

**Listing:** --/SSC; County Group 1; MSCP Covered

**Distribution:** Ventura County southeast through Los Angeles, Orange, Riverside and San Diego counties to northwestern Baja

**Habitat:** Chaparral and coastal sage scrub on rocky hillsides and in canyons; also in more open successional sage scrub, such as occurs following fire

**Status on site:** Individuals calling within scrub habitat just off site of TMs 5441 and 5442

**White-tailed kite (*Elanus leucurus*)**

**Listing:** --/--; County Group 1

**Distribution:** Breeds in the Pacific U.S.; winters in South America

**Habitat:** Nests in riparian or oak woodlands adjacent to grasslands supporting small mammals

**Status on site:** Observed flying over the northern portion of TM 5441

**Coastal California gnatcatcher (*Poliioptila californica californica*)**

**Listing:** FT/SSC; County Group 1; MSCP Covered

**Distribution:** Coastal California from Sonoma to San Diego County

**Habitat:** Coastal sage scrub

**Status on site:** Calling within Diegan coastal sage scrub vegetation north of TM 5441 and east TM 5442. On-site coastal sage scrub is suitable to support gnatcatchers on TM 5441 but is considered unsuitable on TM 5442 and only marginally suitable on TM 5440 due to disturbed nature of these parcels.

**San Diego black-tailed jackrabbit (*Lepus californicus bennettii*)**

**Listing:** --/SSC; County Group 2

**Distribution:** Southern Santa Barbara County to San Quintin, Baja. Localities on eastern edge of range include Jacumba and San Felipe Valley.

**Habitat:** Occurs primarily in open habitats including coastal sage scrub, chaparral, grasslands, croplands, and open, disturbed areas if there is at least some shrub cover present

**Status on site:** Observed in Diegan coastal sage scrub in the eastern portion of TM 5442

**Turkey vulture (*Cathartes aura*)**

**Listing:** --/--; County Group 1

**Distribution:** Observed throughout San Diego County with the exception of extreme coastal San Diego, where development is heaviest

**Habitat:** Foraging habitat includes most open habitats with breeding occurring in crevices among boulders

**Status on site:** A single individual observed soaring over TM 5441





**Southern mule deer (*Odocoileus hemionus fuliginata*)**

**Listing:** --/--; County Group 2; MSCP Covered

**Distribution:** Southern Riverside County (Tahquitz Valley), south on coastal slope to vicinity of San Quintin, Baja

**Habitat:** Coastal sage scrub, riparian and montane forests, chaparral, grasslands, croplands, and open areas if there is at least some scrub cover present. Crepuscular activity and movements are along routes that provide greatest amount of protective cover.

**Status on site:** Species scat observed in isolated locations in TM 5441

A listing of sensitive plant and animal species with the potential to occur on the project site is provided in Attachments D and E, respectively. A listing and explanation of status and sensitivity codes can be found in Attachment F.

## **REGIONAL AND REGULATORY CONTEXT**

### **Federal**

#### **Federal Endangered Species Act**

Because the North County MSCP is currently being developed, impacts to federally listed species such as the threatened coastal California gnatcatcher on TM 5442 may be addressed under Section 10(a), 7, or 4(d) of the federal Endangered Species Act (FESA). Section 10(a) allows issuance of permits for "incidental take" of endangered or threatened species provided a habitat conservation plan (HCP), demonstrating how the take would be minimized and describing measures to ensure the species' survival, is approved. Section 7 describes a process of federal interagency consultation for use when the actions of one agency would affect a listed species.

A special rule under Section 4(d) of FESA authorizes incidental take of the coastal California gnatcatcher in conjunction with an approved plan under the California Natural Communities Conservation Plan (NCCP). An HLP application must be filed with the County and approval requires concurrence from the USFWS and CDFG. Approval is based on Findings made pursuant to the County's HLP Ordinance (County 1993) as required by NCCP Process Guidelines.

#### **Migratory Bird Treaty Act**

The Migratory Bird Treaty Act (MBTA) makes it unlawful to directly take any migratory bird or part, nest, or egg of such bird listed in wildlife protection treaties between the U.S. and other countries. Most bird species are protected under the MBTA.





### U.S. Army Corps of Engineers

Impacts to wetlands and non-wetland Waters of the U.S. are regulated by the Corps under Section 404 of the Clean Water Act (33 U.S.C. 1344). WUS were not delineated for this project, although it appears that TM 5441 is may support non-wetland WUS.

The type of permit required would depend upon the type of activity and amount of jurisdictional areas to be impacted. If project impacts to jurisdictional areas are less than 0.5 acre, a Nationwide Permit (NWP) for residential, commercial, and institutional developments (NWP 39) could be used. The permit application would include a mitigation and monitoring plan.

If the project causes impacts to more than 0.5 acre of jurisdictional areas or more than 300 feet of ephemeral drainages, an individual permit would be required. An individual permit requires the preparation of a biological assessment of the site, formal Section 7 consultation with the USFWS for any endangered species impacts, a detailed Section 404(b)(1) alternatives analysis, an environmental assessment, and preparation of a mitigation/monitoring plan.

### State

#### NCCP

California's NCCP program focuses largely on conserving large areas of coastal sage scrub and the habitats that link those areas. Take of coastal sage scrub by projects that do not occur in an area with an approved plan under the California NCCP program must occur in conformance with the NCCP Guidelines (CDFG 1997). TMs 5440 and 5441 are regulated under the County MSCP Subarea Plan; however, TM 5442 lies within an area proposed for coverage under the North County MSCP Subarea Plan, which has not been adopted. Therefore, take of coastal sage scrub for TM 5442, which lies within the North County MSCP Subarea, is expected to be granted under the FESA Section 4(d) process with the requirement of conformance with the NCCP Guidelines (CDFG 1997). TMs 5440 and 5441 both are subject to regulation under the County MSCP Subarea Plan, which is approved and pursuant to the evaluation of on-site (TM 5442) coastal sage scrub via the NCCP Guidelines flowchart:

Is natural vegetation present?

*Yes. Natural land supporting Diegan coastal sage scrub occurs on site.*

Is coastal sage scrub present?

*Yes. The parcel supports approximately 1.02 acres of Diegan coastal sage scrub (including 0.65 acre of disturbed); however, the parcel has been legally graded and was previously slated for development.*





Is coastal sage scrub the most dense coastal sage scrub in subregion?

*No. Areas of coastal sage scrub to the east, north, and northwest of the parcel are larger, denser, and more intact.*

Is land close to Higher Value District?

*Yes. Project site is located within Subregional Focus Area 8.0 on the NCCP Planning Unit Focus Map. The parcel is largely surrounded by existing or proposed development, including an existing nursery to the south and southeast, single-family residences to the east, and a water treatment facility to the north and northwest. A large patch of higher value coastal sage scrub occurs across Camino de Arriba to the east that is part of an open space preserve that extends through much of the Rancho Cielo development and has connectivity with habitat along Lake Hodges. A constrained connection occurs with habitat off site to the west.*

Is land located in corridor between Higher Value Districts?

*No. Although a constrained connection exists to habitat off site to the west, the site is largely isolated by existing development and does not represent a corridor. The open space area across Camino de Arriba is a part of a large network of habitat but the sage scrub on TM 5442 does not serve a corridor function connecting these habitat areas.*

Does land support high density of target species? Does land support significant populations of highly endemic species or rare sub-habitat types?

*No. Although a coastal California gnatcatcher was heard calling off site, the habitat on site is only marginally suitable to support foraging gnatcatchers and is unsuitable to support nesting gnatcatchers. A high density of coastal California gnatcatchers or other County sensitive species does not occur within the parcel.*

As a result, according to the NCCP Guidelines flowchart, TM 5442 is considered to have lower potential for long-term conservation. Therefore, the NCCP would require that impacts to coastal sage scrub be mitigated at a 1:1 ratio.

### County

#### **MSCP Subarea Plans**

Two of the project parcels (TMs 5440 and 5441) are located within the Metro-Lakeside-Jamul Segment of the County MSCP Subarea Plan (County 1997b), while one (TM 5442) is located within the proposed North County MSCP Subarea, which is currently in draft form.

#### **Resource Protection Ordinance (RPO)**

The County regulates effects on biological resources via its RPO; in addition to wetlands (which were not delineated as a part of this project), it addresses sensitive habitat lands and wetland buffers. These policies apply to all three project parcels.





Sensitive habitat lands are defined in the RPO as

[l]ands that support unique vegetation communities or the habitats of rare or endangered species or sub-species of animals or plants . . . [including] the area necessary to support a viable population of any of the above species in perpetuity or which is *critical to the proper functioning* of a balanced natural ecosystem or which serves as a functioning wildlife corridor.

Wetlands are defined as

All lands that are transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or where the land is covered by water. All lands having one or more of the following attributes are "wetlands:"

- a. At least periodically, the land supports predominantly hydrophytes (plants whose habitat is water or very wet places);
- b. The substratum is predominantly undrained hydric soil; or
- c. The substratum is non-soil and is saturated with water or covered by water at some time during the growing season of each year.

No vegetation considered predominantly hydrophytes was observed during the biological survey, nor were any areas of undrained hydric soil or non-soil. Therefore, no RPO wetlands occur within any of the parcels.

Wetland buffers are defined as

[l]ands that provide a buffer area of an appropriate size to protect the environmental and functional habitat values of the wetland, or which are integrally important in supporting the full range of the wetland and adjacent upland community.

The RPO also requires that open space easements be placed over steep slopes and development be precluded from floodways or floodplains, wetlands and sensitive habitat lands. Sensitive habitat lands are identified by the RPO as lands that "support unique vegetation communities, or habitats of rare or endangered species or sub-species of animals or plants as defined by Section 15380 of the CEQA Guidelines." Additionally, the County requires avoidance of impacts to 80 percent of County Group A and B sensitive plants.

## BMO

The BMO (County 1997a) is the mechanism by which the County implements the MSCP to meet the goals of County Subarea Plan. Therefore, it applies only to TMs 5440 and 5441; TM 5442 lies outside of the County MSCP Subarea and is subject to regulation under the NCCP, not the BMO.





The BMO contains design criteria and mitigation standards that protect habitats and species and ensures that projects do not preclude the viability of the MSCP Preserve System. In this way, the BMO typically requires an 80 percent avoidance of local populations of County Group A and B plant species in addition to any required mitigation. Additionally, the BMO promotes the preservation of lands that contribute to contiguous habitat core areas or linkages.

Under the BMO, habitat is considered a Biological Resource Core Area (BRCA) if it meets one of the following criteria:

- It is considered a pre-approved mitigation area on the wildlife agencies' pre-approved mitigation map;
- It contains biological resources that support or contribute to the long-term survival of sensitive species and is adjacent to the pre-approved mitigation area;
- It is part of a regional linkage/corridor;
- It is mapped as Very High or High shown on the Habitat Evaluation Map and links significant patches of habitat;
- It is part of a patch of habitat greater than 500 acres in area habitat that contributes to the conservation of sensitive species; or
- It supports a high number of sensitive species and is contiguous to undisturbed habitats.

The proposed development on TM 5440 lies in an area that was previously approved for development and cleared, and is largely surrounded by existing or approved development. Furthermore, the parcel is not considered a pre-approved mitigation area and is unlikely to contribute in any significant way to the survival of any sensitive species. Therefore, this parcel would not be considered a BRCA.

Conversely, TM 5441 supports mostly native vegetation, with potential to support sensitive species, including the southern California rufous-crowned sparrow, white-tailed kite, and coastal California gnatcatcher. However, four of the lots on this TM are currently approved for development, three were previously cleared, and development is planned or exists to the north, east, and south. Thus, TM 5441 would not be considered a BRCA.

## IMPACTS AND PROPOSED MITIGATION

All three TMs are currently permitted for development (with the exception of the existing open space easements over the southern portion of TM 5440 and what was Lot 4 of TM 5441) under the existing HLP (94-003, Log 94-8-12; County 1995) for the Rancho Cielo Specific Plan, and all approved impacts have been (or will be) mitigated per the Mitigation Plan (Rancho Cielo Company 1995). The proposed TMs would reduce the total impacts to sensitive vegetation associated with the Rancho Cielo Specific Plan and improve the open space system's overall connectivity.





### Vegetation Communities

#### TM 5440

The impacts from the proposed development on TM 5440 would be slightly less (0.8 acre) than the 3.92 acres that were previously approved. Most of the impacts would be within disturbed habitat, although 0.58 acre would be to Diegan coastal sage scrub (including 0.47 acre of disturbed), which is considered County sensitive (Figure 6; Table 2). The development, including brush management, would avoid the existing and proposed expansion of the open space easement on the lot.

The proposed changes on TM 5440 would not increase the impacts over those mitigated under the existing Mitigation Plan (Rancho Cielo Company 1995); therefore, no additional mitigation measures would be required to offset impacts to vegetation communities on the lot.

#### TM 5441

Under the existing Final Map, impacts to 16.76 acres from development of Lots 1, 2, 3, and 5 were analyzed and mitigated (Figure 7a). Impacts included 9.6 acres of Diegan coastal sage scrub (2.79 acres of disturbed), 6.6 acres of southern mixed chaparral, 0.11 acre of non-native grassland, 0.39 acre of disturbed habitat, and 0.06 acre of developed land.

Under the proposed SPA, total impacts on the parcel would be reduced by 6.96 acres to 9.80 acres. Permanent and brush management impacts would include 9.04 acres of Diegan coastal sage scrub (including 2.80 acres of disturbed), 0.20 acre of southern mixed chaparral, 0.11 acre of non-native grassland, 0.39 acre of disturbed habitat, and 0.06 acre of developed land (Figure 7b; Table 2).

With implementation of the proposed TM 5441, what was Lot 4 would remain in open space and what was Lot 5 would also be dedicated as open space. This would connect Lot 4 to previously dedicated open space areas to the northwest, improving the contiguity of the open space system on site and increasing the total open space area within TM 5441 by 7.15 acres, from 4.53 to 11.69 acres.

#### TM 5442

Development on TM 5442 would impact 3.12 acres, including 1.06 acres of Diegan coastal sage scrub (including 0.65 acre of disturbed; Figure 8 and Table 2), which is considered County sensitive. The proposed changes on TM 5442 would not increase the impacts over those originally anticipated; therefore, no additional mitigation measures would be required.





**Table 2**  
**IMPACTS TO VEGETATION COMMUNITIES\***

Vegetation Community	Tier†	Existing	Impacts			
			TM 5440	TM 5441	TM 5442§	Total
Diegan coastal sage scrub (including disturbed)	II	13.39	0.58	6.29	1.06	7.93
Southern mixed chaparral	III	10.23	0.00	0.20	0.00	0.20
Non-native grassland	III	0.11	0.00	0.11	0.00	0.11
Non-native vegetation	IV	0.06	0.00	0.00	0.06	0.06
Disturbed habitat	IV	5.70	3.20	0.39	1.52	5.11
Developed land	IV	0.60	0.06	0.06	0.48	0.60
<b>TOTAL</b>		<b>30.09</b>	<b>3.84</b>	<b>7.05</b>	<b>3.12</b>	<b>14.01</b>

\*All areas are presented in acre(s) rounded to the nearest 0.01

†Tier levels are per the BMO (County 1997a): the lower the tier number, the more sensitive the community

§Includes off-site impacts to right of way between TM 5442 and Camino de Arriba.

### Sensitive Species

The existing Mitigation Plan (Rancho Cielo Company 1995) addresses mitigation measures to offset impacts from the Rancho Cielo development to sensitive species, particularly the coastal California gnatcatcher. The currently proposed changes in the development plan would reduce the total area of impact, particularly in the parcel with the highest conservation value (TM 5441). Additionally, the proposed changes would preserve more open space on site and improve its contiguity and overall value to sensitive species. As a result, no impacts to sensitive species would occur beyond those already mitigated under the Mitigation Plan.

#### **TM 5440**

No sensitive species would be impacted on TM 5440, although gnatcatchers have potential to occur within coastal sage scrub in the open space in the southern portion of the parcel.

#### **TM 5441**

Approximately 0.07 acre of habitat supporting wart-stemmed ceanothus would be impacted by Zone B brush management. Preservation of wart-stemmed ceanothus within TM 5441 would increase by 2.77 acres, for a net increase in preservation for this species of 2.70 acres.





Foraging habitat for the southern California rufous-crowned sparrow, white-tailed kite, and coastal California gnatcatcher detected on or near TM 5441 have potential to be impacted by grading on the parcel. Nesting habitat for the white-tailed kite does not occur on the parcel, and that for the gnatcatcher is limited on the parcel, but is abundant off site to the east. However, given the abundance of chaparral, the rufous-crowned sparrow may potentially nest on the parcel. Therefore, if construction occurs during the breeding season, the project has potential to cause direct impacts to any rufous-crowned sparrows or gnatcatchers nesting within the grading footprint. The existing Mitigation Plan (Rancho Cielo Company 1995) already addresses mitigation measures to offset these potential impacts to sensitive species, particularly gnatcatchers.

#### **TM 5442**

Because marginally suitable foraging habitat for the coastal California gnatcatcher and southern California rufous-crowned sparrow occurs on TM 5442, these species have a slight potential to be impacted by grading on the parcel. Nesting habitat for these species does not occur on the parcel and would not be impacted.

The San Diego black-tailed jackrabbit, which was observed in coastal sage scrub in the eastern portion of the parcel, would be directly impacted by the proposed development. However, the sensitivity of this species is low and the number of individuals that may be impacted is small; therefore, this impact would not be regarded as significant.

#### **Indirect Impacts**

The total impact area associated with the proposed SPA would be less than those under the approved Final Map. Therefore, no increase in indirect impacts is anticipated to occur as a result of the proposed project. Regardless, all mitigation measures discussed in the Mitigation Plan (Rancho Cielo Company 1995) must be implemented, including but not limited to the measures below.

#### **Restricted Access to Open Space Areas**

Public access to the open space areas must be restricted. During construction, all open space boundaries must be clearly delineated with construction fencing and all personnel must be instructed to remain within the construction footprint.

#### **Managed Access for Scientific Research**

Limited access to the open space may be granted by the preserve manager for supervised scientific study, provided such access would only be for qualified scientists and that all work be conducted in accordance with a written work plan that is consistent with allowable uses within the open space.





### **Information Signage at Required Trail Access Points**

Signage must be installed along any trails that intersect open space occupied by the coastal California gnatcatcher. Appropriate fencing (e.g., split-rail) must be installed to clearly delineate the boundaries of such trails.

### **Construction Maintenance within Occupied Coastal Sage Scrub Habitat**

Construction or maintenance of trails, fire access, and fuel modification zones, road, infrastructure, or other public facilities shall not occur within 500 feet of the location of a coastal California gnatcatcher from February 1 through July 1, annually, unless otherwise authorized by the County.

### **Biological Monitoring of Construction**

A qualified biological monitor must be employed to monitor clearing and grading adjacent to open space.

### **Cumulative Impacts**

Although impacts to sensitive biological resources on a project site may not be significant when considered alone, impacts may be cumulatively significant when multiple development projects occur in one area. The areas of proposed development on TMs 5440 and 5442 are located on graded lots previously slated for development, and most native vegetation to be impacted on these lots has pioneered in these graded areas. The area proposed for development on TM 5441 exists substantially within the area previously approved for development. In addition, other areas within this TM that were approved for development would be preserved. As a result, the proposed SPA would not contribute to the cumulative loss of sensitive vegetation communities.

Because all three parcels were slated for development under an approved plan, mitigation measures have already been implemented to offset these impacts.

### **CONCLUSION**

With implementation of the proposed SPA, areas of development and preservation on TM 5442 will be the same as the previously approved project. The preserve area on TMs 5440 and 5441 will increase. Implementation of TM 5440 will increase the amount of Diegan coastal sage scrub in open space by 0.09 acre. Implementation of TM 5441 would preserve additional habitat in some places (0.72 acre of coastal sage scrub and 6.43 acres of southern mixed chaparral) and impact previously preserved habitat elsewhere (0.69 acre of coastal sage scrub and 0.12 acre of mixed chaparral, with a net increase in preserved, extant habitat of 7.05 acres.



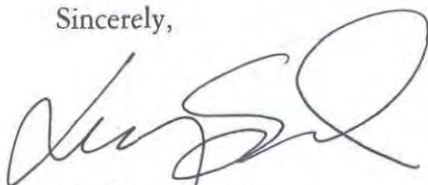


<p align="center"><b>Table 3</b> <b>PROPOSED AMENDMENT TO THE RANCHO CIELO SPA*</b></p>				
<b>Vegetation Community</b>	<b>Tier</b>	<b>Previous Final Maps Open Space</b>	<b>Proposed SPA Open Space</b>	<b>Net Change</b>
Diegan coastal sage scrub (including disturbed)	II	2.65	2.77	+0.06
Southern mixed chaparral	III	3.75	10.04	+6.29
<b>TOTAL</b>		<b>6.40</b>	<b>12.81</b>	<b>+6.41</b>

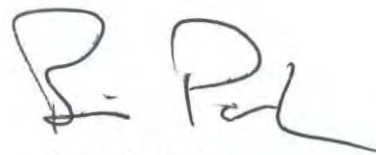
\*All areas are presented in acre(s) rounded to the nearest 0.01

Please call me at (619) 462-1515 if you have any questions regarding this report.

Sincerely,



W. Larry Sward  
County-approved Biologist



Brian D. Parker  
Biologist

Enclosures:

- Figure 1 Regional Location Map
- 2 Project Location Map
- 3 Biological Resources – TM 5440
- 4 Biological Resources – TM 5441
- 5 Biological Resources – TM 5442
- 6 Impacts to Biological Resources – TM 5440
- 7a Previously Permitted Impacts to Biological Resources – TM 5441
- 7b Proposed Impacts to Biological Resources – TM 5441
- 8 Impacts to Biological Resources – TM 5442
- Attachment A Habitat Loss Permit Brush Management Analysis
- B Plant Species Observed
- C Animal Species Observed
- D Listed and County Sensitive Plant Species with Potential to Occur
- E Listed and County Sensitive Animal Species with Potential to Occur
- F Explanation of Status Codes for Plant and Animal Species



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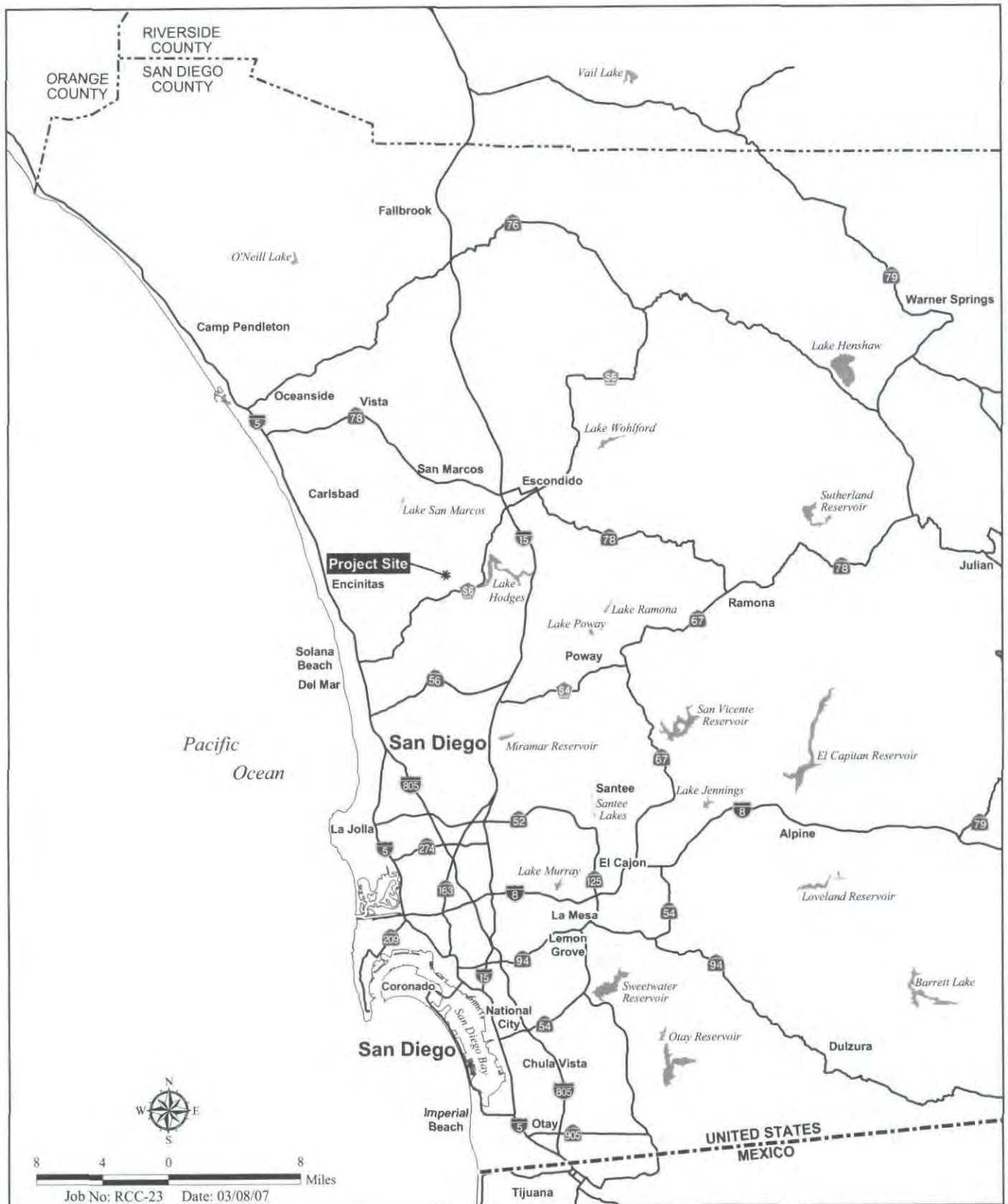




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Rancho Cielo Company. 1995. Mitigation Plan in support of application for Coastal Sage Scrub Habitat Loss Permit, Incidental Take Authorization and Environmental Determination for Final Mapped Properties of Rancho Cielo Company. April 14.



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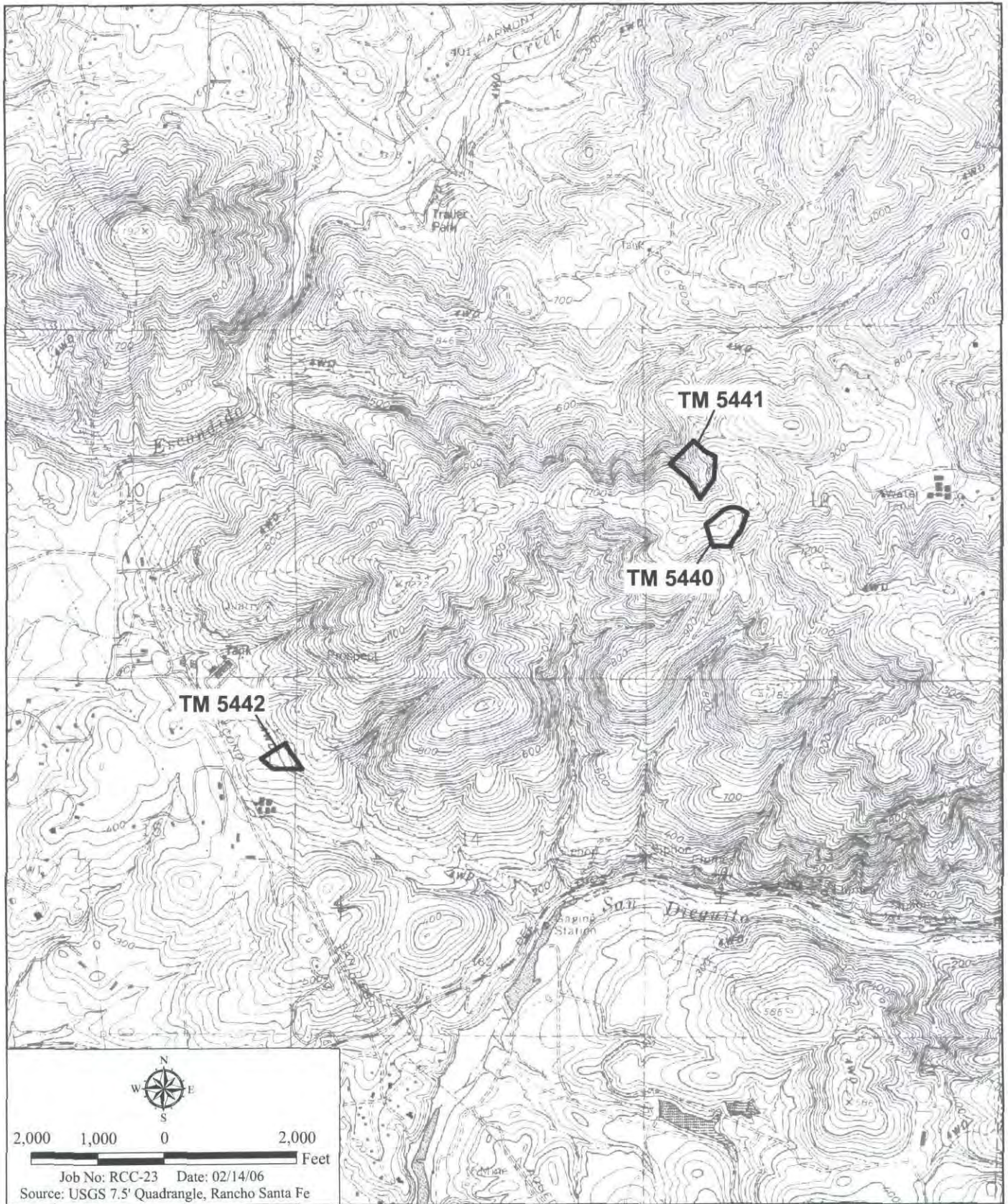
## Regional Location Map

RANCHO CIELO ESTATES SPA 05-004

Figure 1

**HELIX**



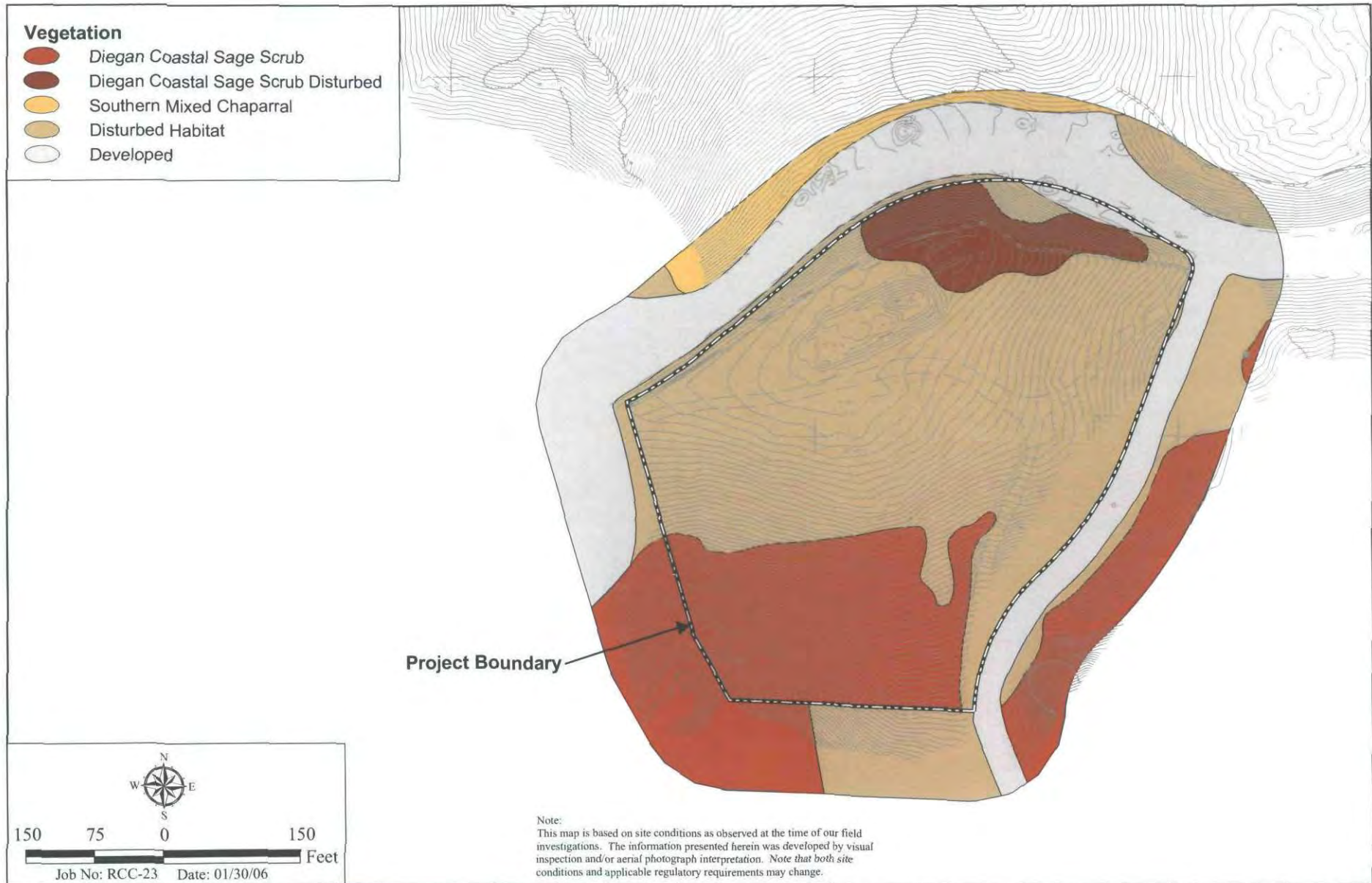


## Project Location Map

RANCHO CIELO ESTATES SPA 05-004

Figure 2



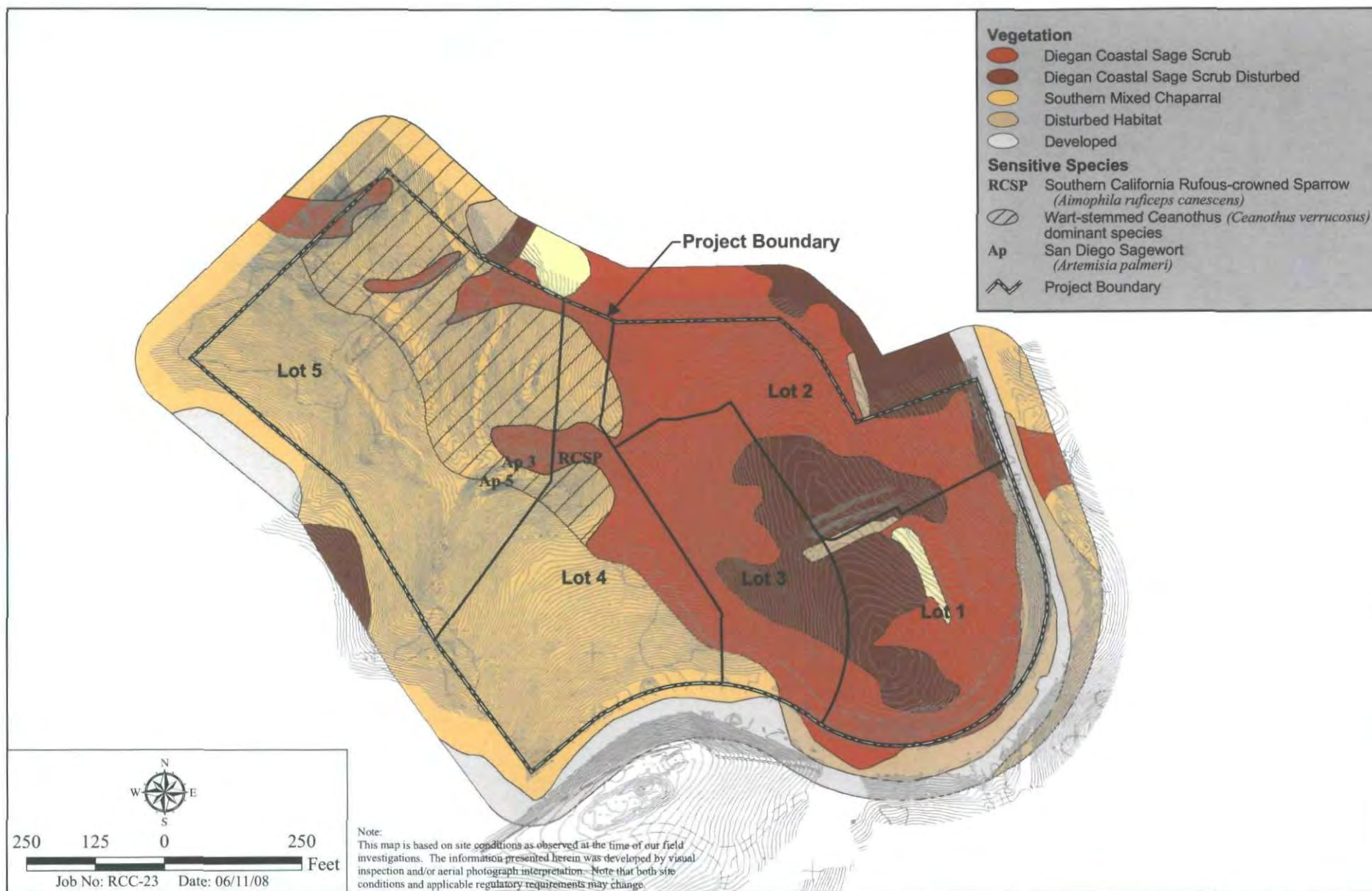


## Biological Resources - TM 5440

RANCHO CIELO ESTATES SPA 05-004

Figure 3



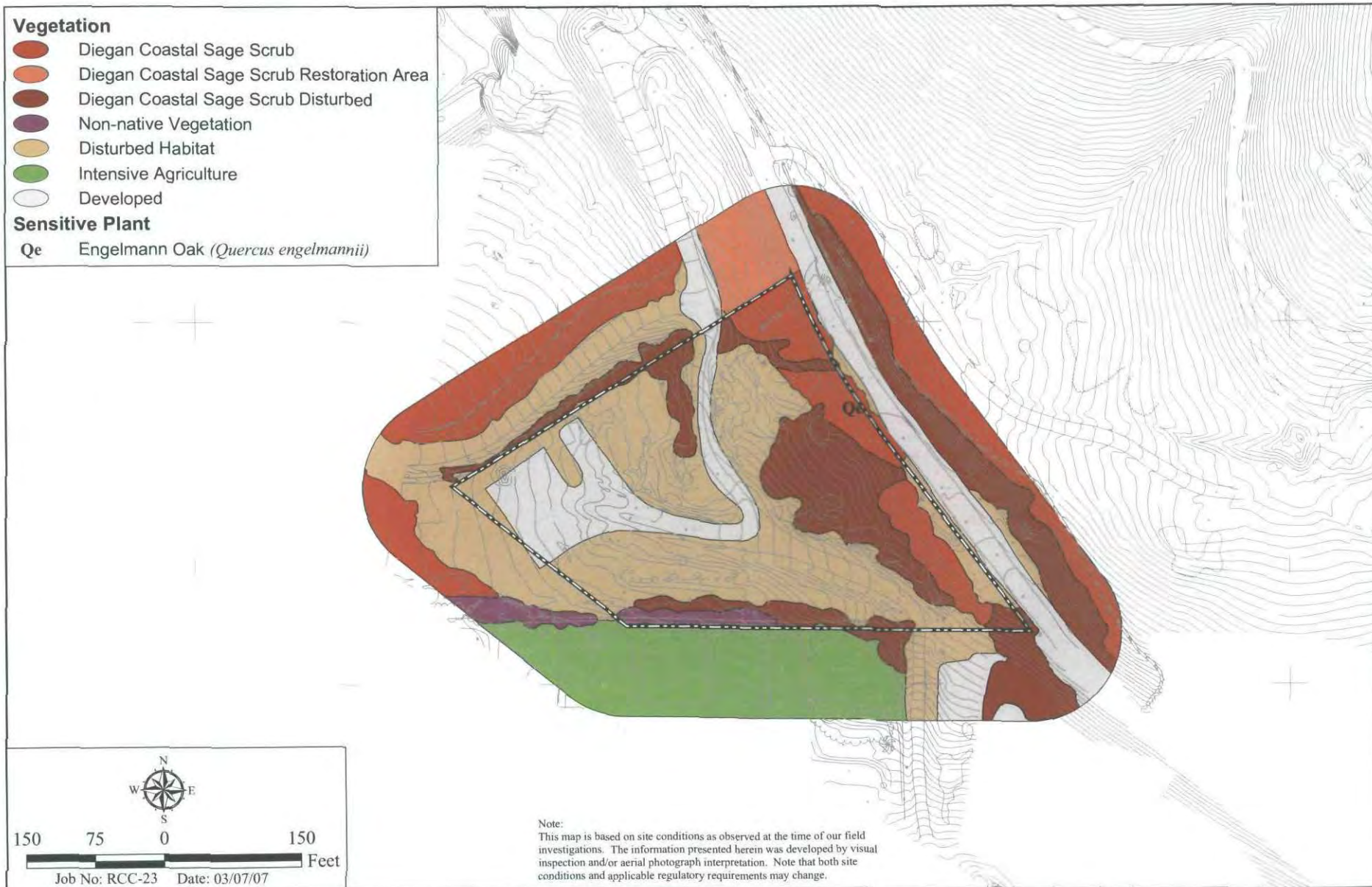


## Biological Resources - TM 5441

RANCHO CIELO ESTATES SPA 05-004

Figure 4



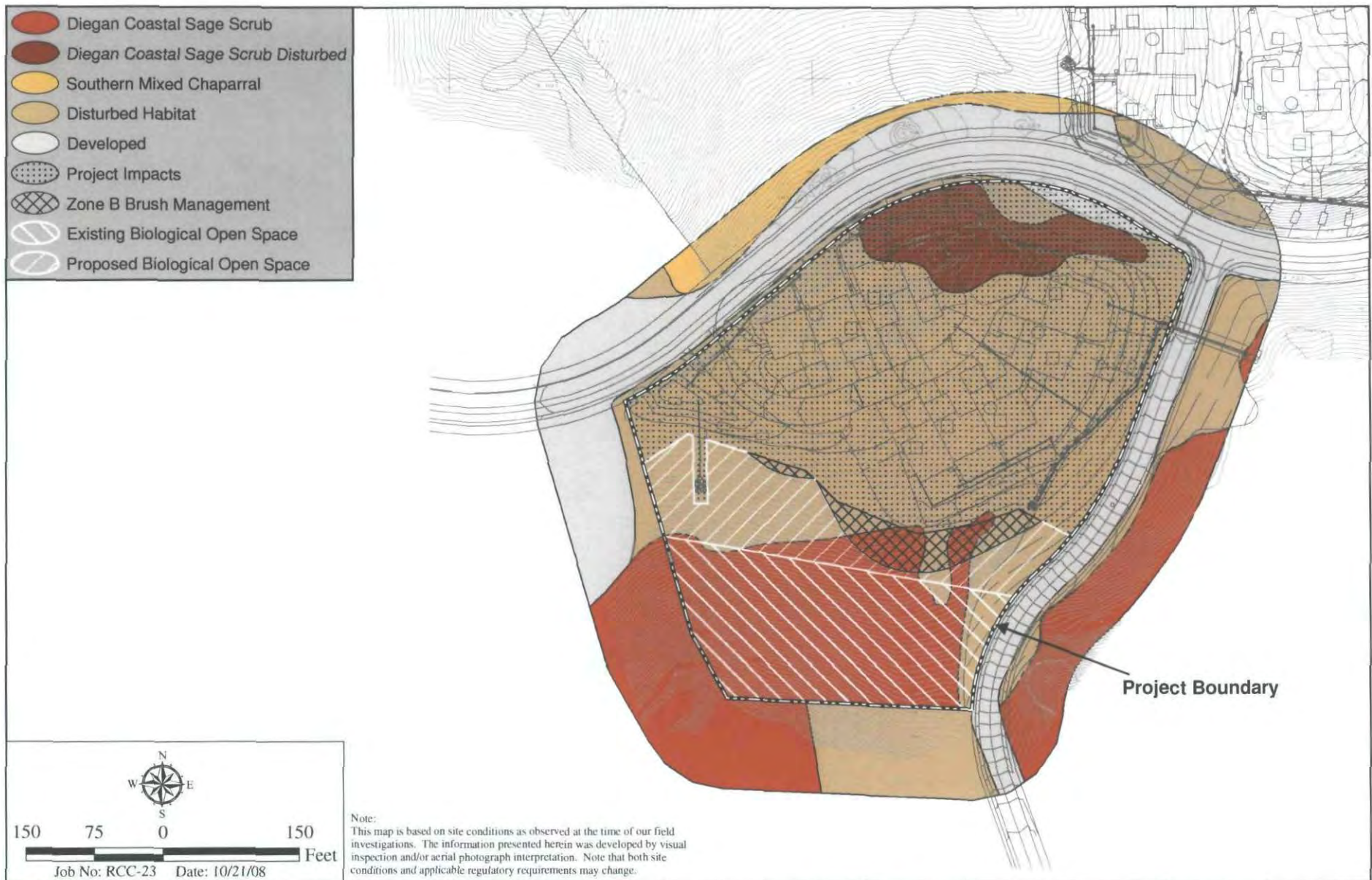


## Biological Resources - TM 5442

RANCHO CIELO ESTATES SPA 05-004

Figure 5





## Impacts to Biological Resources - TM 5440







RANCHO CIELO ESTATES SPA 05-004

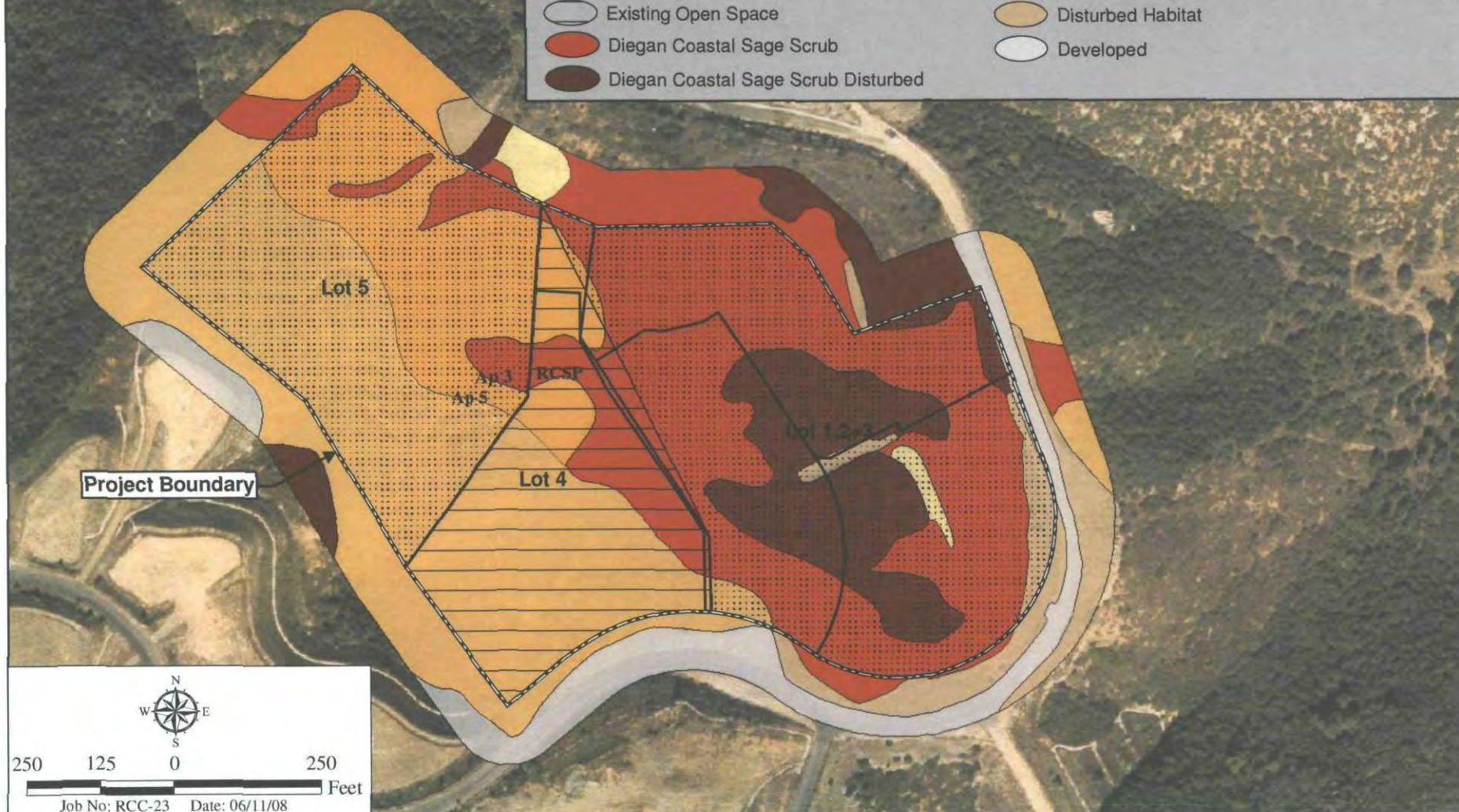
Figure 6



**Note:**

This map is based on site conditions as observed at the time of our field investigations. The information presented herein was developed by visual inspection and/or aerial photograph interpretation. Note that both site conditions and applicable regulatory requirements may change.

- |   |  |
|---|--|
| <b>Ap</b> San Diego Sagewort ( <i>Artemisia palmeri</i> )   |  Non-native Grassland   |
| <b>RCSP</b> Southern California Rufous-crowned Sparrow ( <i>Aimophila ruficeps canescens</i> )                        |  Southern Mixed Chaparral   |
|  Permanent Impacts                   |  Southern Mixed Chaparral - dominated by Wart-stemmed Ceanothus ( <i>Ceanothus verrucosus</i> ) |
|  Existing Open Space                 |  Disturbed Habitat  |
|  Diegan Coastal Sage Scrub           |  Developed  |
|  Diegan Coastal Sage Scrub Disturbed |  |



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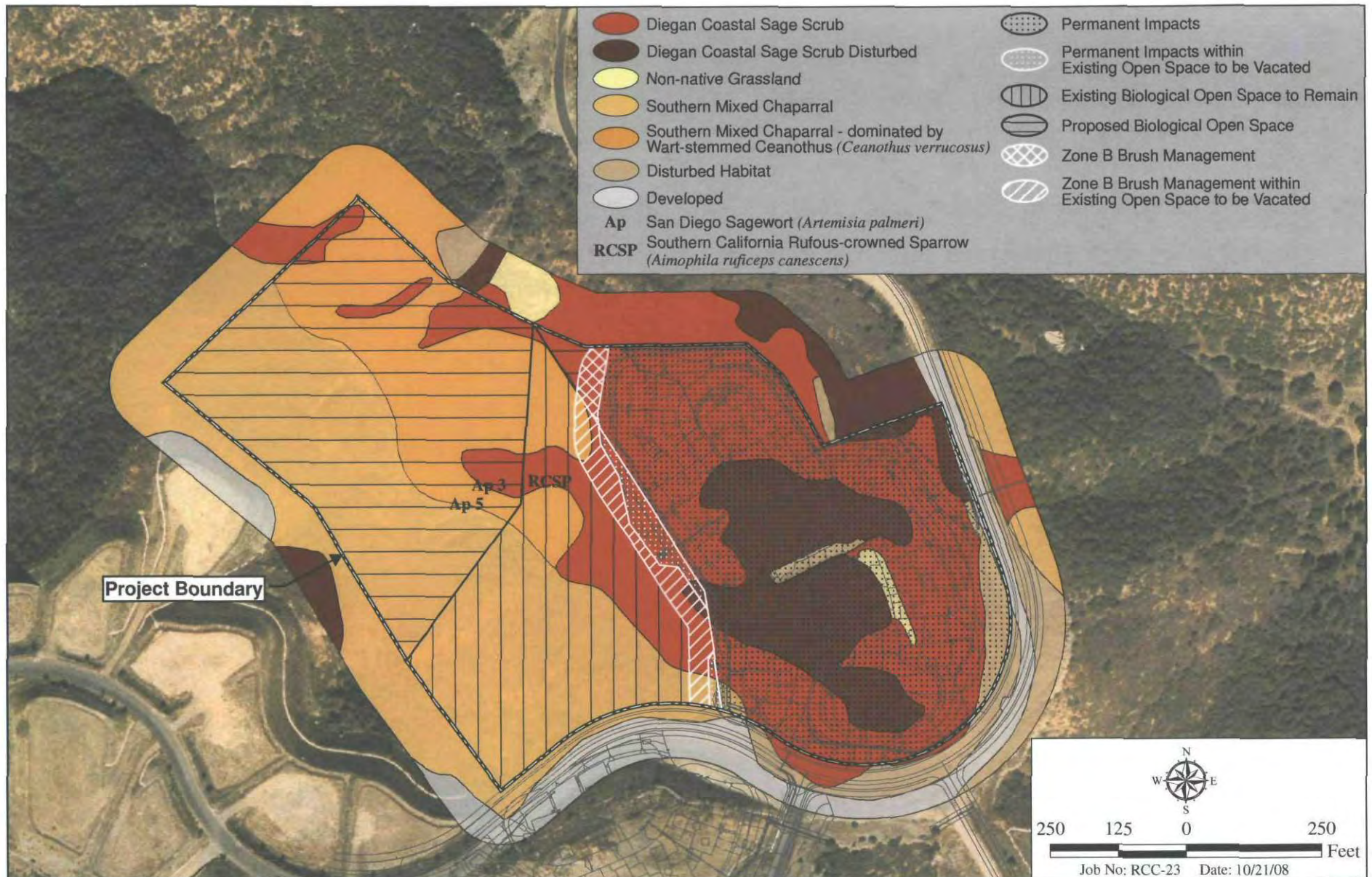
## Previously Permitted Impacts to Biological Resources - TM 5441

RANCHO CIELO ESTATES SPA 05-004

**HELIX**

Figure 7a



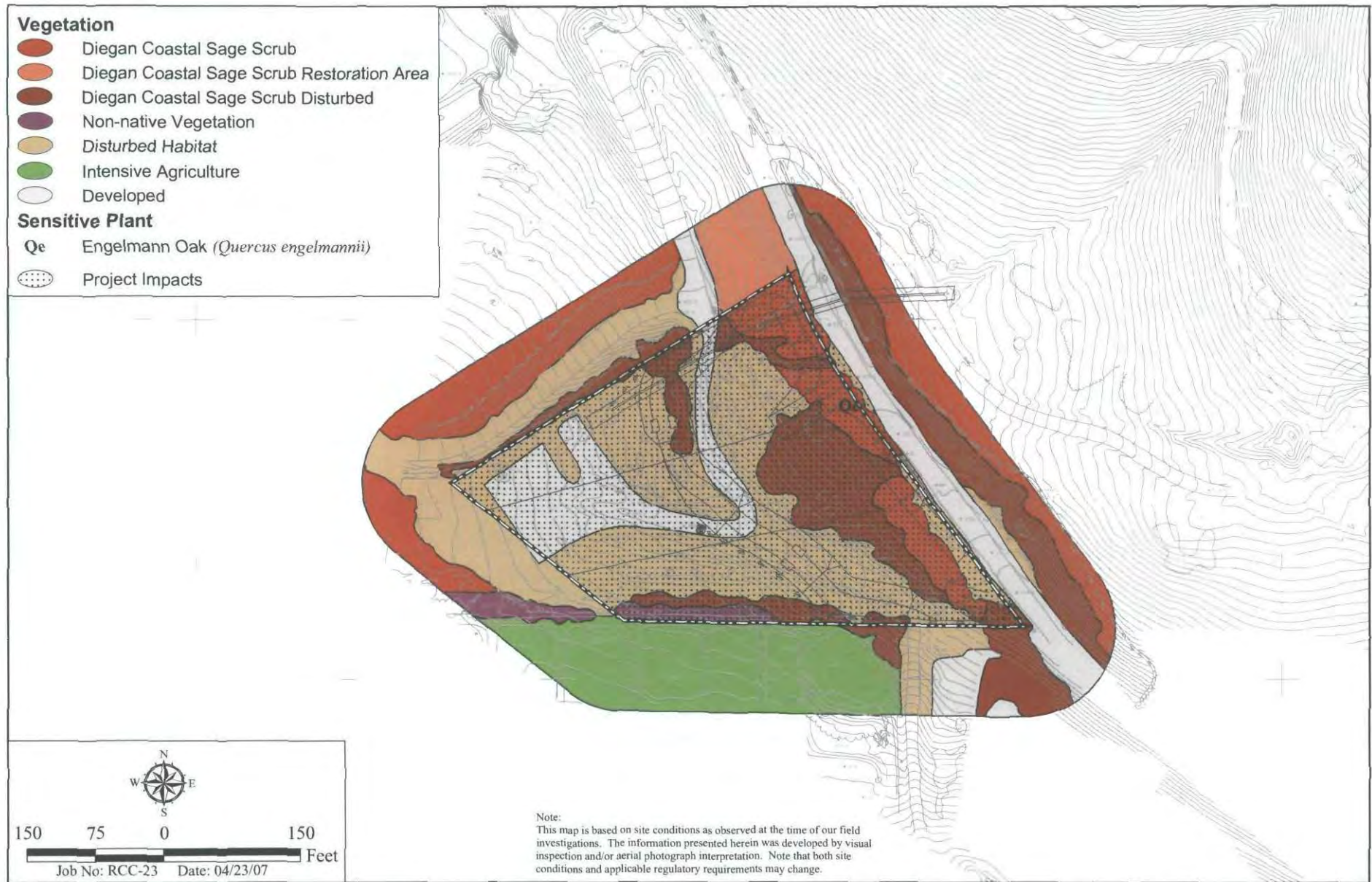


## Proposed Impacts to Biological Resources - TM 5441

RANCHO CIELO ESTATES SPA 05-004

Figure 7b





## Impacts to Biological Resources - TM 5442

RANCHO CIELO ESTATES SPA 05-004

Figure 8



# **Attachment A** **HABITAT LOSS PERMIT BRUSH MANAGEMENT ANALYSIS**

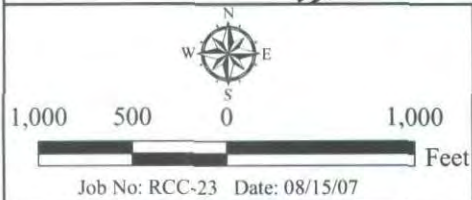
Rancho Cielo Estates was granted a Habitat Loss Permit (HLP) in July 1995 (HLP 94-003). Impacts permitted by the HLP included 61.48 acres of brush management in coastal sage scrub (Table C of Mitigation Plan). Currently, 9.18 acres of brush management in coastal sage scrub open space has been done (Table 1). This figure was calculated by measuring the area of coastal sage scrub in open space within 30 feet of roads planned through coastal sage scrub, and within 100 feet of residences, commercial buildings, the amenity center, and fire station. The area for buildings was done on a lot-by-lot analysis of their actual location. This was done from plans through 2002 and subsequently from an aerial photo (dated November 2006). The coastal sage scrub distribution for this analysis was based on the vegetation mapping provided in support of the HLP.

<p style="text-align: center;"><b>Table 1</b>  <b>COASTAL SAGE SCRUB FUEL MODIFICATION ANALYSIS</b></p>	
<b>Feature</b>	<b>Brush Management Area (acres)</b>
Roads	3.54
Residential and commercial structures, amenity center, and fire station	5.64
<b>TOTAL</b>	<b>9.18</b>

The current total for brush management effects to coastal sage scrub in open space is based on all of the roads that traverse coastal sage scrub and 170 lots where the structures have been built (Table 2). Of these 170 lots, 158 are adjacent to coastal sage scrub. An analysis of the remaining lots shows that 58 lots will be adjacent to coastal sage scrub and 151 will be adjacent to chaparral (Figure A1). With 73 percent of the lots (158 lots/216 lots) adjacent to coastal sage scrub developed, only 15 percent of the HLP brush management allowed in coastal sage scrub has been used.

<p style="text-align: center;"><b>Table 2</b>  <b>FUEL MODIFICATION LOT ANALYSIS</b></p>			
<b>Habitat Type Adjacent to Lots</b>	<b>Developed</b>	<b>Pending</b>	<b>Total</b>
Coastal sage scrub	158	58	216
Chaparral	12	151	163
<b>TOTAL</b>	<b>170</b>	<b>209</b>	<b>379</b>





## RANCHO CIELO ESTATES SPA 05-004



Attachment B  
PLANT SPECIES OBSERVED – RANCHO CIELO

<u>FAMILY</u>	<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>VEGETATION COMMUNITY‡</u>		
				TM	
			<u>5440</u>	<u>5441</u>	<u>5442</u>
PTERIDIOPHYTES					
Pteridaceae	<i>Pentagamma triangularis</i>	goldenback fern		DCSS	
Selaginellaceae	<i>Selaginella cinerascens</i>	ashy spike-moss		DCSS	
ANGIOSPERMS – MONOCOTS					
Liliaceae	<i>Yucca whipplei</i>	Our Lord's candle	DCSS	DCSS, SMC	
	<i>Calochortus</i> sp.	mariposa lily		DCSS	
Poaceae	<i>Avena fatua</i>	wild oat		DCSS	
	<i>Avena</i> sp.	oats		DCSS	
	<i>Bromus hordeaceus</i>	soft chess		DCSS	
	<i>Bromus madritensis</i> ssp. <i>rubens</i>	foxtail chess		DCSS	DH
	<i>Cortaderia jubata</i>	pampas grass	DCSS	SMC	
	<i>Gastridium ventricosum</i>	nit grass		SMC	
	<i>Nassella pulchra</i>	purple needlegrass	DH	DCSS	
	<i>Polypogon monspeliensis</i>	rabbitsfoot grass		SMC	
	<i>Vulpia myuros</i>	fescue		DCSS	
ANGIOSPERMS – DICOTS					
Anacardiaceae	<i>Malosma laurina</i>	laurel sumac	DCSS	DCSS, SMC	DCSS, DH
	<i>Rhus integrifolia</i>	lemonadeberry		DCSS, SMC	DCSS
Apiaceae	<i>Daucus pusillus</i>	rattlesnake weed		DCSS	
	<i>Foeniculum vulgare</i>	fennel			DH
Asteraceae	<i>Artemisia californica</i>	California sagebrush	DCSS	DCSS	DCSS
	<i>Artemisia palmeri</i> †	San Diego sagewort		SMC	
	<i>Baccharis pilularis</i>	coyote brush	DCSS	SMC	
	<i>Baccharis salicifolia</i>	mule fat		SMC	DH
	<i>Baccharis sarothroides</i>	broom baccharis	DCSS	DCSS	DCSS, DH
	<i>Carduus pycnocephalus</i>	Italian thistle		DCSS	
	<i>Centaurea melitensis</i>	star thistle	DH		DH
	<i>Conyza canadensis</i>	horseweed			DH
	<i>Cynara cardunculus</i>	cardoon	DH		
	<i>Deinandra fasciculata</i>	fascicled tarplant	DH		DCSS
	<i>Encelia californica</i>	California encelia			DCSS
	<i>Eriophyllum confertiflorum</i>	golden-yarrow	DH	DCSS	DH
	<i>Filago californica</i>	California filago		DCSS	
	<i>Filago gallica</i>	narrow-leaf filago	DH		
	<i>Gnaphalium californicum</i>	California everlasting		SMC	
	<i>Hazardia squarrosa</i> var. <i>grindelioides</i>	saw-toothed goldenbush	DCSS		DCSS



Attachment B (cont.)  
PLANT SPECIES OBSERVED – RANCHO CIELO

FAMILY	SCIENTIFIC NAME	COMMON NAME	VEGETATION COMMUNITY‡		
			5440	TM 5441	5442
ANGIOSPERMS – DICOTS (cont.)					
Asteraceae (cont.)	<i>Hypochaeris glabra</i>	smooth cat's-ear	DH	DCSS	
	<i>Isocoma menziesii</i> var. <i>menziesii</i>	San Diego goldenbush			DCSS
	<i>Picris echioides</i>	bristly ox-tongue	DH		
	<i>Sonchus asper</i>	prickly sow thistle			DH
	<i>Stephanomeria virgata</i>	virgate wreath-plant	DCSS		DH
Boraginaceae	<i>Echium candicans</i>	pride of Madeira			DH
Brassicaceae	<i>Brassica nigra</i>	black mustard		DCSS	
	<i>Brassica</i> sp.	mustard	DH		DH
	<i>Hirschfeldia incana</i>	perennial mustard	DH	DCSS	
Chenopodiaceae	<i>Chenopodium</i> sp.	pigweed			DH
	<i>Salsola tragus</i>	Russian thistle	DH		
Ericaceae	<i>Xylococcus bicolor</i>	mission manzanita		SMC	DH
Euphorbiaceae	<i>Eremocarpus setigerus</i>	dove weed			DH
	<i>Ricinus communis</i>	castor-bean			DH
Fabaceae	<i>Lotus scoparius</i> var. <i>scoparius</i>	coastal deerweed	DH	DCSS	DCSS
Fagaceae	<i>Quercus berberidifolia</i>	scrub oak		SMC	
	<i>Quercus engelmannii</i>	Engelmann oak			DH
Gentianaceae	<i>Centaurium venustum</i>	canchalagua		SMC	
Geraniaceae	<i>Erodium cicutarium</i>	red-stem filaree	DH		
Hydrophyllaceae	<i>Phacelia cicutaria</i> var. <i>hispida</i>	caterpillar phacelia			DH
Lamiaceae	<i>Salvia apiana</i>	white sage		DCSS, SMC	
	<i>Salvia mellifera</i>	black sage	DCSS	SMC	DCSS
Malvaceae	<i>Sidalcea malviflora</i> ssp. <i>sparsifolia</i>	checker-bloom		SMC	
Onagraceae	<i>Clarkia purpurea</i> ssp. <i>quadrivulnera</i>	four-spot clarkia		DCSS	
Polygonaceae	<i>Eriogonum fasciculatum</i>	California buckwheat	DCSS	DCSS	DCSS
Primulaceae	<i>Anagallis arvensis</i>	scarlet pimpernel		DCSS	
Rhamnaceae	<i>Ceanothus tomentosus</i>	Ramona ceanothus		SMC	
	<i>Ceanothus verrucosus</i> †	wart-stemmed ceanothus		SMC	
Rosaceae	<i>Adenostoma fasciculatum</i>	chamise		DCSS, SMC	
	<i>Heteromeles arbutifolia</i>	toyon		SMC	DH
Rubiaceae	<i>Galium</i> sp.	bedstraw		SMC	
Salicaceae	<i>Salix lasiolepis</i>	arroyo willow		SMC	DH
Scrophulariaceae	<i>Mimulus aurantiacus</i>	monkey-flower		SMC	
Solanaceae	<i>Nicotiana glauca</i>	tree tobacco			DH

†Sensitive species

‡Habitat acronyms: DCSS=Diegan coastal sage scrub, DH=disturbed habitat, SMC=southern mixed chaparral



Attachment C  
ANIMAL SPECIES OBSERVED – RANCHO CIELO

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>PARCEL OBSERVED</u>		
			TM	
		<u>5440</u>	<u>5441</u>	<u>5442</u>
INVERTEBRATES				
<u>Insects</u>				
<i>Apis mellifera</i>	honey bee		X	
<i>Vanessa cardui</i>	painted lady	X	X	
VERTEBRATES				
<u>Amphibian</u>				
<i>Pseudacris regilla</i>	Pacific treefrog		X	
<u>Birds</u>				
<i>Aimophila ruficeps canescens</i> †	southern California rufous-crowned sparrow		X	X
<i>Aphelocoma coerulescens</i>	western scrub jay		X	
<i>Buteo jamaicensis</i>	red-tailed hawk		X	X
<i>Callipepla californica</i>	California quail		X	X
<i>Calypte anna</i>	Anna's hummingbird			X
<i>Carduelis psaltria</i>	lesser goldfinch			X
<i>Carpodacus mexicanus</i>	house finch	X	X	X
<i>Cathartes aura</i>	turkey vulture		X	
<i>Chamaea fasciata</i>	wrentit	X	X	
<i>Corvus brachyrhynchos</i>	American crow	X	X	X
<i>Corvus corax</i>	common raven	X	X	
<i>Dendroica coronata</i>	yellow-rumped warbler			X
<i>Elanus leucurus</i> †	white-tailed kite		X	
<i>Pipilo crissalis</i>	California towhee	X	X	X
<i>Poliophtila californica californica</i> †	coastal California gnatcatcher		X	X
<i>Psaltiriparus minimus</i>	bushtit			X
<i>Salpinctes obsoletus</i>	rock wren	X		
<i>Sayornis saya</i>	Say's phoebe	X		
<i>Thryomanes bewickii</i>	Bewick's wren	X	X	X
<i>Zonotrichia leucophrys</i>	white-crowned sparrow			X
<u>Mammals</u>				
<i>Lepus californicus bennettii</i> †	San Diego black-tailed jackrabbit			X
<i>Neotoma</i> sp.	wood rat			X
<i>Odocoileus hemionus fuliginata</i>	southern mule deer		X	
<i>Spermophilus beecheyi nudipes</i>	California ground squirrel	X	X	

†Sensitive species



**Attachment D**  
**LISTED AND COUNTY SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR –**  
**RANCHO CIELO**

SPECIES	STATUS*	POTENTIAL TO OCCUR/COMMENTS
San Diego thorn-mint ( <i>Acanthomintha ilicifolia</i> )	FT/SE CNPS List 1B.1 MSCP Covered County List A	Low. Occurs on clay lenses in open areas among coastal sage scrub or chaparral. Suitable conditions not recorded on any parcels under consideration.
California adolphia ( <i>Adolphia californica</i> )	--/-- CNPS List 2.1 County List B	Low. Occurs in grassland, coastal sage scrub, or chaparral areas with gravelly or rocky soils. Generally found on slopes above drainages. Only marginally suitable habitat occurs in the parcels under consideration.
San Diego ambrosia ( <i>Ambrosia pumila</i> )	FE/-- CNPS List 1B.1 MSCP Covered County List A	Very low. Found in creek beds, drainages, and floodplains, often along the periphery of riparian forest or woodland. Suitable habitat does not occur in the parcels under consideration.
Del Mar manzanita ( <i>Arctostaphylos glandulosa</i> ssp. <i>crassifolia</i> )	FE/-- CNPS List 1B.1 MSCP Covered County List A	Very low. Generally found in open coastal chaparral. This is a conspicuous shrub and would likely have been detected if present.
Encinitas baccharis ( <i>Baccharis vanessae</i> )	FT/SE CNPS List 1B.1 MSCP Covered County List A	Low. Occurs on chaparral slopes with sandstone soils. Given the relatively small area of the three parcels, this species would likely have been detected if present.
Thread-leaved brodiaea ( <i>Brodiaea filifolia</i> )	FT/SE CNPS List 1B.1 MSCP Covered County List A	Very low. Occurs in vernal pool communities and vernal moist grasslands. Suitable habitat does not occur in the parcels under consideration.
Orcutt's brodiaea ( <i>Brodiaea orcuttii</i> )	--/-- CNPS List 1B.1 MSCP Covered County List A	Low. Found in moist grasslands or on the periphery of vernal pools. Suitable habitat does not occur in the parcels under consideration.
Smooth tarplant ( <i>Centromadia pungens</i> ssp. <i>laevis</i> )	--/-- CNPS List 1B.1 County List A	Low. Generally found in native grasslands and areas with alkaline soils. Suitable habitat does not occur in the parcels under consideration.
Orcutt's pincushion ( <i>Chaenactis glabruiscula</i> var. <i>orcuttiana</i> )	--/-- CNPS List 1B.1 County List A	Low. Occurs in coastal sage scrub near the ocean. Typically found in areas receiving moist breezes from the shore. Project site is likely too far inland.
Orcutt's spineflower ( <i>Chorizanthe orcuttiana</i> )	FE/SE CNPS List 1B.1 County List A	Low. Generally found in somewhat sandy openings within coastal chamise chaparral. Project site may be too far inland to support this species.
Long-spined spineflower ( <i>Chorizanthe polygonoides</i> var. <i>longispina</i> )	--/-- CNPS List 1B.2 County List A	Low. Occurs on open clay lenses and on the periphery of vernal pools or meadows. Suitable habitat does not occur on any parcels under consideration.



Attachment D (cont.) LISTED AND COUNTY SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR – RANCHO CIELO		
SPECIES	STATUS*	POTENTIAL TO OCCUR/COMMENTS
Delicate clarkia ( <i>Clarkia delicata</i> )	--/-- CNPS List 1B.2 County List A	Low. Found on the edges of oak woodlands or chaparral, often in vernal moist habitats. Chaparral on site is likely too xeric to support this species.
Summer holly ( <i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i> )	--/-- CNPS List 1B.2 County List A	Low. Large shrub found in mesic chaparral, foothill and coastal areas. Range extends from San Diego County to northern Baja below 2,100 feet. Would have been observed if present.
Sea dahlia ( <i>Coreopsis maritima</i> )	--/-- CNPS List 2.2 County List B	Low. Occurs on sandstone cliffs along the ocean. Project site too far inland to support species.
Del Mar Mesa sand aster ( <i>Corethrogyne filaginifolia</i> var. <i>linifolia</i> )	--/-- CNPS List 1B.2 MSCP Covered County List A	Low. Generally found in sandy, open areas in coastal sage scrub, coastal bluff scrub, or maritime chaparral. The coastal sage scrub on site is likely too disturbed to support this species. Chaparral on site is inappropriate.
Western dichondra ( <i>Dichondra occidentalis</i> )	--/-- CNPS List 4.2 County List D	Low. Found in chaparral understory, other shaded areas below 1,800 feet, and rock outcroppings, often after fire. Would likely have been detected on site if present. CNDDDB has no record of species in project vicinity.
Variegated dudleya ( <i>Dudleya variegata</i> )	--/-- CNPS List 1B.2 MSCP Covered County List A	Low. Found in openings in sage scrub or chaparral with stony soils, often around vernal pools. Habitat on site is largely too disturbed to support species. Soils on site are only marginally suitable.
Sticky dudleya ( <i>Dudleya viscida</i> )	--/-- CNPS List 1B.2 MSCP Covered County List A	Low. Occurs on steep slopes with relatively moist conditions in chaparral, coastal bluff, scrub or coastal sage scrub. Habitat on site is only marginally suitable.
Palmer's goldenbush ( <i>Ericameria palmeri</i> var. <i>palmeri</i> )	--/-- CNPS List 2.2 MSCP Covered County List B	Low. Range extends from southern San Diego County to northern Baja. Typically found along drainages or near chaparral. Site is outside known range.
San Diego button-celery ( <i>Eryngium aristulatum</i> var. <i>parishii</i> )	FE/SE CNPS List 1B.1 MSCP Covered County List A	Low. Occurs in vernal pool communities, which do not occur on any parcels under consideration.
San Diego barrel cactus ( <i>Ferocactus viridescens</i> )	--/-- CNPS List 2.1 MSCP Covered County List B	Low. Found on open, dry, cobbly hillsides among sage scrub vegetation or around vernal pools. Appropriate sage scrub is found on site, and this species was historically observed approximately 1,000 feet off site to the west. Would have been observed if present.
Orcutt's hazardia ( <i>Hazardia orcuttii</i> )	--/ST CNPS List 1B.1 County List A	Low. Occurs in open chamise or mixed chaparral. Very limited U.S. population is not located in the project vicinity.



Attachment D (cont.) LISTED AND COUNTY SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR – RANCHO CIELO		
SPECIES	STATUS*	POTENTIAL TO OCCUR/COMMENTS
Graceful tarplant ( <i>Holocarpha virgata elongata</i> )	--/-- CNPS List 4.2 County List D	Low. Found in open areas, coastal, and foothill grasslands in San Diego, Riverside, and Orange counties. No grassland occurs on the parcels under consideration.
San Diego marsh-elder ( <i>Iva hayesiana</i> )	--/-- CNPS List 2.2 County List B	Very low. Occurs in streambeds and open canopy riparian situations. Suitable habitat not found on site.
Southwestern spiny rush ( <i>Juncus acutus leopoldii</i> )	--/-- CNPS List 4.2 County List D	Low. Ranges extend from Arizona to Baja and the central California coast. Found in moist, saline, or alkaline areas within coastal, foothill, and desert land. Habitat on site is largely unsuitable. Would likely have been observed if present.
Coulter's goldfields ( <i>Lasthenia glabrata</i> ssp. <i>coulteri</i> )	--/-- CNPS List 1B.1 County List A	Low. Typically occurs in marshes just above the tidal zone. Suitable habitat does not occur on site.
Robinson's pepper-grass ( <i>Lepidium virginicum</i> var. <i>robinsonii</i> )	--/-- CNPS List 1B.2 County List A	Very low. Widespread throughout southern California foothill in dry, exposed locales. Nearest reported observation is Rancho Santa Fe vicinity.
Nuttall's lotus ( <i>Lotus nuttallianus</i> )	--/-- CNPS List 1B.1 MSCP Covered County List A	Very low. Found in protected back dunes and in coastal scrub on very sandy soils. Suitable conditions do not occur on site.
Felt-leaved monardella ( <i>Monardella hypoleuca</i> ssp. <i>lanata</i> )	--/-- CNPS List 1B.2 MSCP Covered County List A	Low to moderate. Occurs in chaparral understory, typically in association with chamise. Although somewhat appropriate habitat occurs on site, majority of San Diego observations are well east or south of site.
San Diego goldenstar ( <i>Muilla clevelandii</i> )	--/-- CNPS List 1B.1 MSCP Covered County List A	Low. Found in grasslands near vernal pools or mima mound topography. No grasslands or vernal pools occur in any parcels under consideration.
Spreading navarretia ( <i>Navarretia fossalis</i> )	FT/-- CNPS List 1B.1 MSCP Covered County List A	Low. Typically occurs in vernal pool communities. Suitable habitat does not occur on site.
Coast woolly-heads ( <i>Nemacaulis denudata</i> var. <i>denudata</i> )	--/-- CNPS List 1B.2 County List A	Low. Occurs in sand dune communities, both in the desert and on the coast. Suitable habitat does not occur on site.
California Orcutt grass ( <i>Orcuttia californica</i> )	FE/SE CNPS List 1B.1 MSCP Covered County List A	Low. Typically occurs in vernal pool communities. Suitable habitat does not occur on site.
Nuttall's scrub oak ( <i>Quercus dumosa</i> )	--/-- CNPS List 1B.1 County List A	Low. Occurs in coastal chaparral communities, where it often forms monotypic stands. A conspicuous woody shrub that would have been detected if present on site.

\*Refer to Appendix E for a listing and explanation of status codes for plant and animal species



**Attachment E**  
**LISTED AND COUNTY SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR –**  
**RANCHO CIELO**

SPECIES	STATUS*	POTENTIAL TO OCCUR/COMMENTS
<b>INVERTEBRATES</b>		
Hermes copper butterfly ( <i>Lycaena hermes</i> )	--/-- County Group 1	Very low. Host plant <i>Rhamnus crocea</i> not found on site.
Monarch butterfly ( <i>Danaus plexippus</i> )	--/-- County Group 2	Moderate to high. Migratory species likely passes through the site. Roosts in large tree groves, which do not occur on the parcels under consideration.
<b>VERTEBRATES</b>		
<b>Fish</b>		
Arroyo chub ( <i>Gila orcutti</i> )	--/SSC County Group 1	None. Occurs in warm streams associated with the Los Angeles, San Gabriel, San Luis Rey, Santa Ana, and Santa Margarita rivers. Creeks on site too ephemeral to provide suitable habitat.
<b>Amphibians</b>		
Arroyo toad ( <i>Bufo californicus</i> )	FE/SSC County Group 1	Low. Generally occurs in areas with open sandbars along perennial creeks or watercourses with relatively open riparian forest canopies. Suitable habitat does not occur on site.
California red-legged frog ( <i>Rana aurora draytoni</i> )	FT/-- County Group 1 MSCP Covered	None. Appropriate habitat is characterized by dense, shrubby riparian vegetation with deep, slow-moving water. Readily displaced by introduced aquatic predators such as bullfrogs ( <i>Rana catesbiana</i> ) or crayfish ( <i>Procambarus</i> sp). Believed extirpated from San Diego County.
<b>Reptiles</b>		
Silvery legless lizard ( <i>Anniella nigra argentea</i> )	--/SSC County Group 2	High. Occurs in areas with loose soil, particularly in sand dunes and or otherwise sandy soil. Generally found in leaf litter, under rocks, logs, or driftwood in oak woodland, chaparral, and desert scrub. Habitat on site is suitable to support this reclusive species.
Coastal rosy boa ( <i>Charina trivirgata roseofusca</i> )	--/--	Low to moderate. Occurs among rocky outcrops in coastal sage scrub, chaparral, and desert scrub. Although suitable habitat occurs on the Rancho Cielo property, rock outcrops do not occur on any parcels under consideration.
Orange-throated whiptail ( <i>Cnemidophorus hyperythrus beldingi</i> )	--/SSC County Group 2 MSCP Covered	Moderate. Occurs in coastal sage scrub, chaparral, on edges of riparian woodlands, washes, and in weedy, disturbed areas adjacent to these habitats. Generally found where termites ( <i>Reticulitermes</i> sp.) are present. None observed during multiple surveys.



Attachment E (cont.) LISTED AND COUNTY SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR – RANCHO CIELO		
SPECIES	STATUS*	POTENTIAL TO OCCUR/COMMENTS
VERTEBRATES (cont.)		
Reptiles (cont.)		
Coastal whiptail ( <i>Cnemidophorus tigris stejnegeri</i> )	--/-- County Group 1	High. Occurs in open coastal sage scrub, chaparral, and woodlands. Frequently found along edges of dirt roads traversing its habitats. Important habitat components include open, sunny areas, shrub cover with accumulated leaf litter, and an abundance of insects, spiders, or scorpions. Habitat on site suitable to support species.
San Diego banded gecko ( <i>Coleonyx variegatus abbotti</i> )	--/-- County Group 1	Low. Found in chaparral and coastal sage scrub in areas with rock outcrops. Although chaparral and coastal sage scrub occur on site, this species is not generally found in project vicinity.
Red-diamond rattlesnake ( <i>Crotalus ruber</i> )	--/SSC County Group 2	High. Found in chaparral, coastal sage scrub, along creek banks, and in rock outcrops or piles of debris with a supply of burrowing rodents for prey. Habitat on site is highly suitable to support species, although that on TM 5442 may be too disturbed.
San Diego ringneck snake ( <i>Diadophis punctatus similis</i> )	--/--	Low. Generally occurs in moist habitats such as oak woodlands and canyon bottoms but is sometimes encountered in grassland, chaparral, and coastal sage scrub. Habitat on site may be too dry to support species.
Coronado skink ( <i>Eumeces skiltonianus interparietalis</i> )	--/SSC	High. Found in open areas, sparse brush, and oak woodlands, usually under rocks, leaf litter, logs, debris, or in the shallow burrows it digs (Zeiner et al. 1988). Habitat on site (particularly on TM 5441) is highly suitable to support species.
Coast horned lizard ( <i>Phrynosoma coronatum</i> )	--/SSC County Group 2 MSCP Covered	Moderate. Occurs in coastal sage scrub, chaparral, and open woodlands with sufficient basking sites, adequate scrub cover, and areas of loose soil. Requires harvester ants ( <i>Pogonomyrmex</i> spp.), a primary prey item. Habitat on site suitable to support species, although none detected during multiple surveys.
Coast patch-nosed snake ( <i>Salvadora hexalepis virgultea</i> )	--/SSC	High. Found in coastal sage scrub, chaparral, riparian, grasslands, and agricultural fields (Zeiner et al. 1988). Prefers open habitats with friable or sandy soils, burrowing rodents for food, and enough cover to escape bird predators. Suitable habitat occurs on site, although that on TM 5442 may be too disturbed.



Attachment E (cont.) LISTED AND COUNTY SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR – RANCHO CIELO		
SPECIES	STATUS*	POTENTIAL TO OCCUR/COMMENTS
VERTEBRATES (cont.)		
Reptiles (cont.)		
Two-striped garter snake ( <i>Thamnophis hammondi</i> )	--/SSC County Group 1	Low. Found primarily along permanent creeks and streams but also around vernal pools and along intermittent streams. Forages in aquatic habitats and eats amphibian larvae and fish. Suitable foraging habitat does not occur on site.
South coast garter snake ( <i>Thamnophis sirtalis</i> )	--/SSC County Group 2	Low. Subspecies of garter snake found in southern California. Requires water/riparian areas near grasslands, coastal sage scrub, or chaparral. Site may be too dry to support species.
Birds		
Cooper's hawk ( <i>Accipiter cooperii</i> )	--/SSC County Group 1 MSCP Covered	Moderate. Occurs throughout the continental U.S. excluding Alaska, parts of Montana, and parts of the Dakotas. Winters in Mexico and Honduras. In San Diego County, tends to inhabit lowland riparian areas and oak woodlands in proximity to suitable foraging areas such as shrublands or fields. No suitable nesting habitat occurs in the parcels under consideration, although they support suitable foraging habitat.
Sharp-shinned hawk ( <i>Accipiter striatus</i> )	--/SSC County Group 1	Low. Would only occur during winter as a visitor.
Grasshopper sparrow ( <i>Ammodramus savannarum</i> )	--/-- County Group 1	Low. Found from southern Canada to the southern U.S., West Indies, Mexico, and Ecuador. Locally found in unplowed grassland habitat and contains some native grass components. No suitable grassland occurs on the parcels under consideration.
Bell's sage sparrow ( <i>Amphispiza belli belli</i> )	--/SSC County Group 1	Moderate. Occurs in s chaparral and sage scrub with modest leaf litter. Suitable habitat occurs on TM 5441.
Great blue heron ( <i>Ardea herodias</i> )	--/-- County Group 2	Low. Year-round resident of wetland habitats but can be observed foraging away from water. No suitable habitat occurs on any parcels under consideration.
Burrowing owl ( <i>Athene cunicularia</i> )	--/SSC County Group 1	None. Occurs in open country with various burrowing mammal burrows. No suitable habitat occurs on any parcels under consideration. Evidence of species or direct observation would have occurred if present.



Attachment E (cont.) LISTED AND COUNTY SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR – RANCHO CIELO		
SPECIES	STATUS*	POTENTIAL TO OCCUR/COMMENTS
VERTEBRATES (cont.)		
Birds (cont.)		
Golden eagle ( <i>Aquila chrysaetos</i> )	--/SSC County Group 1 MSCP Covered	Very low. Forages in grassy and open, shrubby habitats. Nest most often on cliffs, less often in trees. Tend to require places of solitude and usually found at distance from human habitation. San Diego population is monitored closely; none reported in project vicinity.
Coastal cactus wren ( <i>Campylorhynchus brunnicapillus couesi</i> )	--/SSC County Group 1 MSCP Covered	Low. Occurs in coastal sage scrub with large cacti for nesting. No suitable habitat occurs on any parcels under consideration.
Northern harrier ( <i>Circus cyaneus</i> )	--/SSC County Group 1 MSCP Covered	Moderate. Suitable habitat includes coastal, salt, and freshwater marshlands, grasslands, prairie, sage scrub, and chaparral. No suitable habitat occurs on any parcels under consideration.
Southwestern willow flycatcher ( <i>Empidonax traillii eximius</i> )	FE/SE County Group 1 MSCP Covered	None. Breeds within thickets of willows or other riparian understory, usually along streams, ponds, lakes, or in canyon drainage bottoms. Significant populations in San Diego County found only on Santa Margarita and San Luis Rey rivers. No suitable habitat occurs on any parcels under consideration.
California horned lark ( <i>Eremophila alpestris actia</i> )	--/SSC County Group 2	None. Occurs in open habitats such as coastal strand, arid grasslands, and sandy desert floors. No suitable habitat occurs on any parcels under consideration.
Yellow-breasted chat ( <i>Icteria virens</i> )	--/SSC County Group 1	None. Prefers brushy tangles, briars, stream thickets, riparian scrub, and riparian woodland. Breeding confined to riparian woodlands. No suitable habitat occurs on any parcels under consideration.
Loggerhead shrike ( <i>Lanius ludovicianus</i> )	--/SSC County Group 1	Low. Found in open grassland, shrubland, and ruderal vegetation habitats with adequate perching locations. Habitat on site only marginally suitable.
Common barn owl ( <i>Tyto alba</i> )	--/-- County Group 2	Low. Occupies a vast range of habitats from rural to urban, including woodlands and open areas with trees or other structures that can offer shelter. Typically requires nearby open grassland for hunting. Grasslands do not occur on any parcels under consideration.
Least Bell's vireo ( <i>Vireo bellii pusillus</i> )	FE/SE County Group 1 MSCP Covered	None. Prefers riparian woodland and is most frequent in areas that combine an understory of dense, young willows ( <i>Salix</i> spp.) or mule fat ( <i>Baccharis salicifolia</i> ) with a canopy of tall willows. No suitable habitat occurs on any parcels under consideration.



Attachment E (cont.) LISTED AND COUNTY SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR – RANCHO CIELO		
SPECIES	STATUS*	POTENTIAL TO OCCUR/COMMENTS
VERTEBRATES (cont.)		
Mammals		
Pallid bat ( <i>Antrozous pallidus pacificus</i> )	--/SSC County Group 2	Low. Roosts colonially in caves, mines, crevices, and abandoned buildings. Suitable roosting sites do not occur on any parcels under consideration.
Ringtail ( <i>Bassariscus astutus</i> )	--/Fully Protected County Group 2	Low. Found in various riparian habitats and in brush stands of moist forest and shrub habitats at low to middle elevations. Strictly nocturnal. No riparian habitat occurs in any parcels under consideration.
Northwestern San Diego pocket mouse ( <i>Chaetodipus fallax fallax</i> )	--/SSC County Group 2	Moderate. Occurs in open areas of coastal sage scrub and weedy growth, often on sandy substrates. Suitable habitat occurs on site, although that on TMs 5440 and 5442 is likely too disturbed to support species.
Mexican long-tongued bat ( <i>Choeronycteris mexicana</i> )	--/SSC County Group 2	None. Arid scrub, mixed forest, and canyons in mountain ranges rising from desert. Usually appears during the day in caves and mines but sometimes in building entrances. Suitable roosting habitat does not occur on site.
Townsend's western big-eared bat ( <i>Corynorhinus townsendii</i> )	--/SSC County Group 2	Low to moderate. Roosts in caves and buildings, but strongly tied to water. Widespread but uncommon through California. Occurrence is negatively correlated with human presence.
Stephens' kangaroo rat ( <i>Dipodomys stephensi</i> )	FE/ST County Group 1	Low. Prefers large areas of disturbed or patchy grasslands, open coastal sage scrub. Suitable habitat does not occur on any parcels under consideration.
Greater western mastiff bat ( <i>Eumops perotis californicus</i> )	--/SSC	Low. Inhabits crevices in cliff faces, high buildings, trees, and tunnels. Foraging is concentrated around bodies of water but also includes coastal sage scrub, chaparral, and grassland habitats. Suitable habitat does not occur on any parcels under consideration.
Mountain lion ( <i>Felis concolor</i> )	--/Fully Protected County Group 2	Low. Widespread, ranging locally from mountains into foothills, rarely to coastal areas. No sign of species was found on site. Site likely too far west.
San Diego black-tailed jackrabbit ( <i>Lepus californicus bennettii</i> )	--/SSC County Group 2	High. Occurs primarily in open habitats, including coastal sage scrub, chaparral, grasslands, croplands, and open disturbed areas if at least some shrub cover present. All three parcels support suitable habitat.
California leaf-nosed bat ( <i>Macrotus californicus</i> )	--/SSC County Group 2	Low. Preferred roosts include caves or abandoned mines. Not likely to roost on site because of lack of deep caves or mines but could forage if there is a roost in vicinity.



Attachment E (cont.) LISTED AND COUNTY SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR – RANCHO CIELO		
SPECIES	STATUS*	POTENTIAL TO OCCUR/COMMENTS
VERTEBRATES (cont.)		
Mammals (cont.)		
Small-footed myotis ( <i>Myotis ciliolabrum</i> )	--/-- County Group 2	Low. Generally occurs in deserts and other arid locales. Roosts in caves, rock crevices, buildings, and in holes or cracks in trees. Only marginally suitable habitat on site.
Yuma myotis ( <i>Myotis yumanensis</i> )	--/-- County Group 2	Low. Presence tied to water sources not available on site. Roosts in caves and buildings, which are present on site.
San Diego desert woodrat ( <i>Neotoma lepida intermedia</i> )	--/SSC County Group 2	High. Positive identification would require trapping. Generally found in chaparral, oak woodland, and coastal sage scrub below 3,000 feet. Suitable habitat occurs on all three parcels under consideration.
Pocketed free-tailed bat ( <i>Nyctinomops femorosaccus</i> )	--/SSC County Group 2	None. Prefers desert habitats with high cliffs or rock outcrops. Suitable high rocks are not found on any parcels under consideration.
Big free-tailed bat ( <i>Nyctinomops macrotis</i> )	--/SSC County Group 2	Very low. Isolated populations throughout southwestern U.S. Prefers forest and deserts. Occurs in low, rugged canyons and forages over open water. Project site may be too coastal to support species.
Southern mule deer ( <i>Odocoileus hemionus fuliginata</i> )	--/-- County Group 2	High. Occurs in coastal sage scrub, riparian and montane forests, chaparral, grasslands, croplands, and open areas if there is at least some scrub cover present. Crepuscular activity and movements are along routes that provide the greatest amount of protective cover. Likely abundant in hills around the property.
Southern grasshopper mouse ( <i>Onychomys torridus ramona</i> )	--/SSC County Group 2	Low. Generally found in desert habitats with loose, friable soils. Less common in coastal scrub and chaparral. Habitat on site only moderately suitable. No records in project vicinity.
American badger ( <i>Taxidea taxus</i> )	--/-- County Group 2	Moderate. Occurs in a variety of scrub habitats, particularly in open areas with friable soils. Requires fossorial rodents upon which they prey. Habitat on site is suitable.

\*Refer to Appendix E for a listing and explanation of status codes for plant and animal species



Attachment F  
EXPLANATION OF STATUS CODES FOR PLANT AND ANIMAL SPECIES

U.S. Fish and Wildlife Service (USFWS)

FE     Federally listed endangered  
FT     Federally listed threatened

California Department of Fish and Game (CDFG)

SE     State listed endangered  
ST     State listed threatened  
SSC    State species of special concern

County of San Diego

**Plant Sensitivity**

Group A     Plants rare, threatened, or endangered in California and elsewhere  
Group B     Plants rare, threatened, or endangered in California but more common elsewhere  
Group C     Plants that may be quite rare but need more information to determine true rarity status  
Group D     Plants of limited distribution and are uncommon but not presently rare or endangered

**Animal Sensitivity**

Group 1     Animals that have a very high level of sensitivity either because they are listed as threatened or endangered or because they have very specific natural history requirements.

Group 2     Animal species that are becoming less common, but are not yet so rare that extirpation or extinction is imminent without immediate action. These species tend to be prolific within their suitable habitat types.

Multiple Species Conservation Program (MSCP) Covered

Multiple Species Conservation Program covered species for which the County has take authorization within MSCP area.



Attachment F (cont.)

EXPLANATION OF STATUS CODES FOR PLANT AND ANIMAL SPECIES

California Native Plant Society (CNPS) Codes

Lists

- 1A = Presumed extinct.
- 1B = Rare, threatened, or endangered in California and elsewhere. Eligible for state listing.
- 2 = Rare, threatened, or endangered in California but more common elsewhere. Eligible for state listing.
- 3 = Distribution, endangerment, ecology, and/or taxonomic information needed. Some eligible for state listing.
- 4 = A watch list for species of limited distribution. Needs monitoring for changes in population status. Few (if any) eligible for state listing.

List/Threat Code Extensions

- .1 = Seriously endangered in California (over 80 percent of occurrences threatened/high degree and immediacy of threat)
- .2 = Fairly endangered in California (20 to 80 percent occurrences threatened)
- .3 = Not very endangered in California (less than 20 percent of occurrences threatened, or no current threats known)

A CA Endemic entry corresponds to those taxa that only occur in California.

All List 1A (presumed extinct in California) and some List 3 (need more information; a review list) plants lacking threat information receive no threat code extension. Threat Code guidelines represent only a starting point in threat level assessment. Other factors, such as habitat vulnerability and specificity, distribution, and condition of occurrences, are considered in setting the Threat Code.





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July 22, 2009

NAC-01

Mr. Jim Kilgore  
Latitude 33  
4933 Paramount Dr., 2<sup>nd</sup> Floor  
San Diego, CA 92123

Subject: Addendum to the October 31, 2008 Biological Resources Letter  
Report for Rancho Cielo Estates, Specific Plan Amendment 05-004,  
Tentative Map 5441

Dear Mr. Kilgore:

Following review of the request for a Multiple Species Conservation Plan (MSCP) boundary adjustment for the Rancho Cielo Estates Specific Plan Amendment (SPA 05-004), the U.S. Fish and Wildlife Service requested an estimate of the number of preserved and impacted wart-stemmed ceanothus (*Ceanothus verrucosus*) plants. This information is necessary to conform to the Biological Mitigation Ordinance (BMO) requirements for the preservation of County of San Diego narrow endemic species. This addendum addresses that issue.

On July 14, 2009, I collected data on the size and density of wart-stemmed ceanothus from 4 locations within TM 5441 (Figure 1). All of these locations were in southern mixed chaparral that is dominated by this species: 3 locations were in areas that would be preserved and 1 location was in the area proposed for Zone B brush management impacts. At each location, I measured the crown, or canopy width, and height of 3 typical wart-stemmed ceanothus individuals. I also noted the number of individuals rooted in a 150 square foot area that supported only wart-stemmed ceanothus, and the percent cover of wart-stemmed ceanothus in the nearby surrounding area. From this data, I extrapolated the total number of individuals per acre for the impacted and preserved areas. A sample calculation for plants per acre is:

$$(6 \text{ plants}/150 \text{ sq ft}) \times (90\% \text{ cover}) \times (290^1) = 1,568 \text{ plants/acre}$$

The number of individuals impacted or preserved was derived by multiplying the observed density, times the percent cover, times the area of impacted or preserved habitat, as appropriate. A sample calculation for plants per acre is:

$$(1,568 \text{ plants/acre}) \times 0.07 \text{ acre} = 110 \text{ plants}$$

---

<sup>1</sup> 290  $\approx$  1 acre or 43,560 sq. ft.  $\div$  150 sq. ft.





Addendum letter to Mr. Jim Kilore  
July 22, 2009

Page 2 of 2

The density of wart-stemmed ceanothus in the preserve and impact areas are comparable (Table 1), with approximately 1,321 plants per acre in the preserve area and 1,568 plants per acre in the impact area. The size of the individual wart-stemmed ceanothus varied somewhat with the location, presumably in response to the micro-environmental conditions (e.g., landscape position and soil qualities) of each area.

The number of wart-stemmed ceanothus individuals impacted by the project, which were previously in open space, is estimated to be 110 plants. The number of wart-stemmed ceanothus plants that would be preserved, which were previously in an impact area, is estimated to be 3,659 individuals. The total number of wart-stemmed ceanothus in the preserve and impact areas is approximately 3,769 plants. Based on this number, the percentage of wart-stemmed ceanothus in the proposed impact area is 2.9 percent. Conversely, the amount of wart-stemmed ceanothus in the proposed preserve area is 97.1 percent.

These estimates show that the project exceeds the 80 percent preservation threshold stipulated in the BMO for narrow endemic species such as wart-stemmed ceanothus. The amount of preservation for this species for the project area is approximately 97 percent.

Please call me if you have any questions or comments regarding this project.

Sincerely,

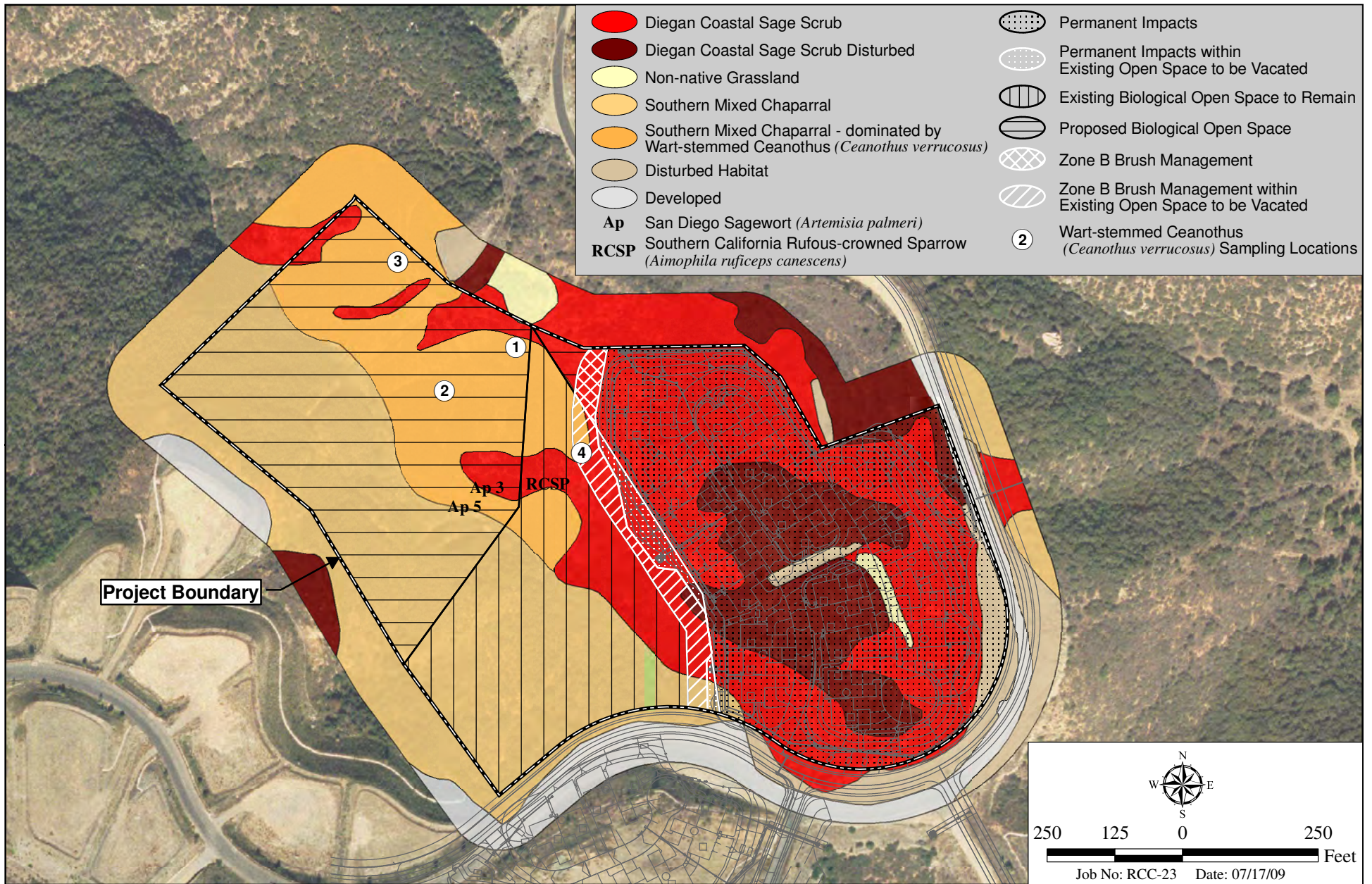
A handwritten signature in black ink, appearing to read "W. Larry Sward".

W. Larry Sward  
Senior Scientist

Attachments: Figure 1 Proposed Impacts to Biological Resources – TM 5441  
Table 1 Wart-stemmed Ceanothus Observations, TM 5441,  
SPA 05-004

cc: Mr. Ronnie Lam  
New Age Cielo, LLC  
c/o Kam Sang Company  
411 E. Huntington Dr., Ste. 305  
Arcadia, CA 91006





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## Proposed Impacts to Biological Resources - TM 5441

RANCHO CIELO ESTATES SPA 05-004

Addendum Figure 1



**Table 1**  
**WART-STEMMED CEANOTHUS OBSERVATIONS**  
**TM 5441, SPA 05-004**

<b>Sample</b>	<b>Cover (%)</b>	<b>Density (# / acre)</b>	<b>Height*</b>	<b>Diameter*</b>
Preserve Area				
1	70	1,423	7	4.3
2	80	1,161	7.6	6.7
3	95	1,379	6	4.7
Average	81.7	1,321	6.9	5.2
Impact Area				
4	90	1,568	6.3	5.7

\* In feet.